The Hon.ble Robert Boyle.

The Hon.ble Robert Boyle.

167

THE LIFE

Of the HONOURABLE

ROBERT BOYLE.

BY

THOMAS BIRCH, M. A. and F. R. S.

LONDON:

Printed for A. MILLAR, over-against *Catharine-Street* in the *Strand*.

MDCC,XLI

BRITISH MUSEUM

To the moſt Reverend Father in GOD,

THOMAS, Herring.

Lord Archbiſhop of YORK,

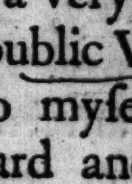
Primate of *England*, and Metropolitan, and one of his Majeſty's moſt Honourable Privy Council.

MY LORD,

RELIGION, as well as Philoſophy, has received ſuch important Service from the excellent Writings and inceſſant Labours of the celebrated Mr: BOYLE, that a juſt Account of them might be altogether worthy of your GRACE's Patronage, who have the trueſt Zeal for the Promotion of Piety, and, it's beſt Support, uſeful Science. But the preſent Performance, I am ſenſible, is ſo unequal to the Subject, that I rather need an Apology for offering it to your GRACE, and can only rely upon your Candour to make Allowance for the Difficulty of executing ſuch a Taſk, in any tolerable Manner, at ſo diſtant a Period, and from ſuch imper-

fect Materials; and to accept of Induſtry in collecting, and Fidelity in relating the Facts, inſtead of a full and adequate Repreſentation of that illuſtrious Perſon, whoſe Character they are deſigned to convey to Poſterity.

While I am thus requeſting your GRACE's Indulgence, I will not venture your Diſpleaſure, by attempting to point out to others, in this Addreſs, thoſe great and amiable Qualities, which have juſtly advanced You to a Station, that affords You the nobleſt Scene for diſplaying them. And indeed, all that I could ſay on this Head, would be a very inconſiderable Addition to the public Voice, and only of Advantage to myſelf, in ſhewing, with what Regard and Veneration I am,



My LORD,

Your GRACE's moſt obliged,

and moſt obedient humble Servant,

London, Feb. 6, 1743-4. THOMAS BIRCH.

The LIFE of

The HONOURABLE

ROBERT BOYLE.

THE honourable *Robert Boyle* was deſcended from a family, whoſe name before the conqueſt was written *Biuvile*. The firſt footing, that we find of them in the county of *Hereford*, was at *Pixely* court, near *Ledbury*, of which *Humfrey de Biuvile* was lord, as is recorded in Doom's-day book, tit: 28. *Terra Humfridi de Biuvile in Radelau Hund: Humfridus de Biuvile tenet de Rege Pichelei Auſhil tenuit.* Theſe words *Auſhil tenuit*, in the general conſtruction of antiquaries, import, that it was in the time of *Edward* the Confeſſor [a].

Lodowick Boyle [b], who lived in the reign of king *Henry* III. was father of *John Boyle*, and he of *James*, who had iſſue *Lodowick*, whoſe ſon was

[a] Letter of doctor *John Beale* to Mr: *Samuel Hartlib*.

[b] Viſitat: Co: Hereford: in Biblioth: Harleyanâ 90. A: 17. p: 72, 73 apud *Collins*'s Peerage of *England*, Vol: II: p: 358. 2d: edit: *London* 1741.

ſucceeded by *James* his ſon and heir, father [c] of *Lodowick Boyle* of *Bidney*, and of the Friers in the city of *Hereford*, in the reign of king *Henry* VI. This *Lodowick* married *Elizabeth*, daughter of *William Ruſſel*, Eſq; and had iſſue [d] a daughter, *Eleanor*, married to *Watkin Ruſſel*, and two ſons, *John Boyle*, Eſq; who had the eſtate in *Herefordſhire*, and *Roger Boyle*, ſecond ſon. This *Roger* married *Jane*, daughter of *Thomas Pattiſhal* of the county of *Hereford*, and had iſſue *John Boyle* of *Hereford*, *Roger*, ſecond ſon, and *Michael Boyle* of *London*, third ſon, who left a numerous iſſue, whereof *Richard*, his ſecond ſon, was biſhop of *Corke* and *Roſs*, being allowed alſo to keep the See of *Cloyne* in commendam, was afterwards archbiſhop of *Tuam*, and died March 19, 1644. He left iſſue *Michael Boyle*, archbiſhop of *Armagh*, and lord chancellor of *Ireland*, who died, aged 93, in the year 1702, and was father to *Murrough Boyle*, created lord viſcount *Bleſſington*. *Michael*, another ſon of the ſaid *Roger*, was biſhop of *Waterford* and *Liſmore*; and Sir *George Boyle*, his fourth ſon, died without iſſue. *Roger Boyle*, the ſecond ſon, married *Joan*, daughter of *John Naylor* of *Kenvile* in the county of *Kent*, and had iſſue *John Boyle*, biſhop of *Corke* and *Roſs* in *Ireland*; *Richard Boyle*, ſecond ſon, earl of *Corke*, and father of that great man, of whom I am to treat; *Hugh Boyle*, third ſon, who died without iſſue; and a daughter married to Sir *Pierce Power* of *Ireland*, Knt.

Richard, the ſecond ſon, was one of the greateſt men of his age; and as he has left ſome memoirs of himſelf, written in 1632, in the ſixty ſeventh year of his age, which were never yet pub-

[c] *Seager*'s Baron: M: S: in Biblioth: Cotton: apud *Collins*, p: 359.

[d] Viſitat: Co: Hereford, *ut antea*.

liſhed

liſhed entire, I ſhall inſert ſo valuable a piece here in juſtice to his character and memory.

" *Sir* RICHARD BOYLE, *Knt: earl of* CORKE, *his true Remembrances.*

I Sir *Richard Boyle*, Knt. lord *Boyle*, baron of *Youghall*, viſcount *Dungarvan*, earl of *Corke*, lord high treaſurer of *Ireland*, one of his majeſty's honourable privy council, and one of the two lords juſtices for the government of this kingdom, do commend theſe *true Remembrances* to poſterity this 23d day of June, *anno Domini* 1632, having lived in this kingdom of *Ireland* full forty four years, and ſo long after as it ſhall pleaſe almighty God.

MY father, Mr. *Roger Boyle*, was born in *Herefordſhire*. My mother *Joan Naylor*, daughter to *Robert Naylor* of *Canterbury* in the county of *Kent*, Eſq; was born the 15th of *October* in the 21ſt year of king *Henry* VIII. and my ſaid father and mother were married in *Canterbury* the 16th of October in the 8th year of queen *Elizabeth*. My father died at *Preſton* near *Feverſham* in *Kent* the 24th of March 1576. My mother never married again, but lived ten years a widow, and then departed this life at *Feverſham* aforeſaid the 20th of March 1586. And they both are buried in one grave in the upper end of the chancel of the pariſh church of *Preſton*; in memory of which my deceaſed and worthy parents, I, their ſecond ſon, have *in anno Domini* 1629 erected a fair alabaſter tomb over the place, where they were buried, with an iron gate before it for the better preſervation thereof.

SIR *Richard Boyle*, now earl of *Corke*, the ſecond ſon of *Roger Boyle*, Eſq; was born in the city of *Canterbury*, as I find it written by my father's own hand, the 3d of October 1566.

Lewis's Antiquities of Faversham: 1727. page: 26.

AFTER the deceaſe of my father and mother, I being the ſecond ſon of a younger brother, having been a ſcholar in *Bennet* college *Cambridge*,* and a ſtudent in the *Middle Temple*, *London*, finding my means unable to ſupport me to ſtudy the laws in the inns of court, put myſelf into the ſervice of Sir *Richard Manwood*, Knt. lord chief baron of her majeſty's court of Exchequer, whom I ſerved as one of his clerks; and perceiving, that the employment would not raiſe a fortune, I reſolved to travel into foreign kingdoms, and to gain learning, and knowledge, and experience abroad in the world. And it pleaſed the Almighty by his divine providence to take me, I may ſay juſtly, as it were, by the hand, and lead me into *Ireland*, where I happily arrived at *Dublin* on the Midſummer-eve, the 23d day of June 1588. I was married at *Limerick* to Mrs. *Joan Apſley*, one of the two daughters and coheirs of *William Apſley*, Eſq; the 6th of November 1595, who brought me in 500 *l.* lands *per* year, which I ſtill enjoy, it being the beginning and foundation of my fortune; and ſhe died at *Moyallo* the 14th of December 1599, in travel of her firſt child, who was born a dead ſon, and both of them buried together in *Buttævant* church.

WHEN firſt I arrived at *Dublin* in *Ireland*, the 23d of June 1588, all my wealth then was twenty ſeven pounds three ſhillings in money, and two tokens, which my mother had given me, viz. a diamond ring, which I have ever ſince and ſtill do wear, and a bracelet of gold worth about ten pounds; a taffety doublet cut with and upon taffety, a pair of black velvet breeches laced, a new *Milan* fuſtian ſuit laced and cut upon taffety, two cloaks, competent linen and neceſſaries, with my rapier and dagger. And ſince, the bleſſing of God, whoſe heavenly providence guided me hither, hath

* Masters's History of Corpus Christi College, Cambridge: 17[illegible] Part: 2: — page: 234.

hath enriched my weak eſtate in beginning with ſuch a fortune, as I need not envy any of my neighbours, and added no care or burthen of my conſcience thereunto. And the 23d of June 1632, I have ſerved my God, queen *Elizabeth*, king *James*, and king *Charles*, full forty four years, and ſo long after, as it ſhall pleaſe God to enable me.

WHEN God had bleſſed me with a reaſonable fortune and eſtate, Sir *Henry Wallop* of *Wares*, Sir *Robert Gardiner*, chief juſtice of the King's Bench, Sir *Robert Dillam*, chief juſtice of the Common Pleas, and Sir *Richard Bingham*, chief commiſſioner of *Connaught*, being diſpleaſed for ſome purchaſes I had made in the province, they all joined together, by their lies complaining againſt me to queen *Elizabeth*, expreſſing, that I came over a young man, without any eſtate or fortune; and that I had made ſo many purchaſes, as it was not poſſible to do it without ſome foreign prince's purſe to ſupply me with money: that I had acquired divers caſtles and abbeys upon the ſea-ſide fit to receive and entertain *Spaniards*: that I kept in my abbeys fraternities and convents of friers in their habits, who ſaid maſs continually: and that I was ſuſpected in my religion; with divers other malicious ſuggeſtions, whereof having ſome ſecret notice, I reſolved to go into *Munſter*, and ſo into *England*, to juſtify myſelf. But before I could take ſhipping, the general rebellion in *Munſter* broke out: all my lands were waſted, as I could ſay, that I had not one peny of certain revenue left me, to the unſpeakable danger and hazard of my life. Yet God preſerved me, as I recovered *Dingle*, and got ſhipping there, which tranſported me to *Briſtol*, from whence I travelled to *London*, and betook myſelf to my former chamber in the *Middle-Temple*, intending to renew my ſtudies in the law, till the

rebellion were paſt over. Then *Robert* earl of *Eſſex* was deſigned for the government of this kingdom, into whoſe ſervice I was recommended by Mr. *Anthony Bacon*. Whereupon his lordſhip very nobly received me, and uſed me with favour and grace, in employing me in the iſſuing out his patent and commiſſions for the government of *Ireland*; whereof Sir *Henry Wallop*, treaſurer, having notice, and being conſcious in his own heart, that I had ſundry papers and collections of *Michael Kettlewell*'s his late under-treaſurer, which might diſcover a great deal of wrong and abuſe done to the queen in his late accounts; and ſuſpecting, if I were countenanced by the earl of *Eſſex*, that I would bring thoſe things to light, which might much prejudice or ruin his reputation or eſtate, although I vow to God, until I was provoked, I had no thought of it; yet he, utterly to ſuppreſs me, renewed his former complaints againſt me to the queen's majeſty. Whereupon, by her majeſty's ſpecial directions, I was ſuddenly attached and conveyed cloſe priſoner to the *Gate-Houſe*; all my papers ſeized and ſearched; and although nothing could appear to my prejudice, yet my cloſe reſtraint was continued till the earl of *Eſſex* was gone to *Ireland*, and two months afterwards; at which time, with much ſuit, I obtained the favour of her ſacred majeſty to be preſent at my anſwers, where I ſo fully anſwered and cleared all their objections, and delivered ſuch full and evident juſtifications for my own acquittal, as it pleaſed the queen to uſe theſe words, viz: "By God's death, theſe are "but inventions againſt this young man; and all "his ſufferings are for being able to do us ſervice, "and thoſe complaints urged to foreſtal him there-"in. But we find him to be a man fit to be em-"ployed by ourſelves; and we will employ him

Q. Eliz.'s Her Majeſtys usual Oath.

"in

" in our ſervice; and *Wallop* and his adherents ſhall " know, that it ſhall not be in the power of any " of them to wrong him; neither ſhall *Wallop* be " our treaſurer any longer." Thereupon ſhe directed her ſpeech to her lords in her council there preſent, and commanded them preſently to give her the names of ſix men, out of which ſhe might chuſe one to be treaſurer of *Ireland*, her election falling upon Sir *George Carew*, of *Cookington*. And then the queen aroſe from council, and gave orders, not only for my preſent enlargement, but alſo diſcharging all my charges and fees during my reſtraint, and gave me her royal hand to kiſs, which I did heartily, humbly thanking God for that deliverance.

BEING commanded by her majeſty to attend at court, it was not many days before her highneſs was pleaſed to beſtow upon me the office of clerk of the council of *Munſter*, and to recommend me over to Sir *George Carew*, after earl of *Totneſs*, then lord preſident of *Munſter*. Whereupon I bought of Sir *Walter Ralegh* his ſhip called the *Pilgrim*, into which I took a freight of ammunition and victuals, and came in her myſelf by long ſeas, and arrived at *Carrig-Foyl-Kerry*, where the lord preſident and the army were at the ſiege of that caſtle; which when he had taken, I was there ſworn clerk of the council of *Munſter*, and preſently after made a juſtice and quorum throughout all that province. And this was the ſecond riſe, that God gave to my fortune.

THEN, as clerk of the council, I attended the lord preſident in all his employments, and waited upon him all the whole ſiege of *Kingſale*, and was employed by his lordſhip to her majeſty, with the news of that happy victory; in which employment I made a ſpeedy expedition to the court; for

I left my lord preſident at *Shannon* caſtle, near *Corke*, on the Monday morning about two of the clock, and the next day, being Tueſday, I delivered my packet, and ſupped with Sir *Robert Cecil*, being then principal ſecretary of ſtate, at his houſe in the *Strand*; who after ſupper held me in diſcourſe till two of the clock in the morning; and by ſeven that morning called upon me to attend him to the court, where he preſented me to her majeſty in her bed-chamber, who remembered me, calling me by my name, and giving me her hand to kiſs, telling me, that ſhe was glad, that I was the happy man to bring the firſt news of that glorious victory. And after her majeſty had interrogated with me upon ſundry queſtions very punctually, and that therein I had given her full ſatisfaction in every particular, ſhe again gave me her hand to kiſs, and recommended my diſpatch for *Ireland*, and ſo diſmiſſed me with grace and favour.

At my return into *Ireland*, I found my lord preſident ready to march with the army to the ſiege of *Beer-haven* caſtle, then fortified and poſſeſſed by the *Spaniards* and ſome Iriſh rebels; which after battering we had made aſſaultable, we entered, and put all to the ſword. His lordſhip fell then to reducing thoſe weſtern rebels of the province to ſubjection and obedience of her majeſty's laws; and having placed gariſons and wards in all places of importance, made his return to *Corke*, and in his way homewards acquainted me with his reſolution; it being preſently to employ me into *England*, to obtain licence from her majeſty, for his repair to her royal preſence: at which time he propounded unto me the purchaſe of all Sir *Walter Ralegh*'s lands in *Munſter*, offering me his beſt aſſiſtance for the compaſſing thereof; which he really performed. For, upon my departure for *England*,

England, he wrote by me two effectual letters, one to Sir *Robert Cecil*, wherein he was pleaſed to magnify my ſervice and abilities; and concluding with a requeſt, that he would make interceſſion with Sir *Walter Ralegh* to ſell me all his lands in *Ireland*, that were then altogether waſte and deſolate. To Sir *Walter Ralegh* he alſo wrote, adviſing him to ſell me all his lands in *Ireland*, then untenanted, and of no value to him; mentioning withal, that, in his lordſhip's knowledge, his eſtate in *Ireland* never yielded him any benefit, but contrariwiſe ſtood him in two hundred pounds yearly for the maintenance and ſupport of his titles. Whereupon there was a meeting between Sir *Robert Cecil*, Sir *Walter Ralegh*, and myſelf; where Sir *Robert Cecil* mediated and concluded the purchaſe between us. Accordingly my aſſurances were perfected; and this was a third addition and riſe to my eſtate.

THEN I returned into *Ireland* with my lord preſident's licence to repair to court, where in his way to *Dublin* (where he propoſed to embark) he dealt very nobly and father-like by me, in perſuading me, it was high time for me to take a wife, in hopes of poſterity to inherit my lands; adviſing me to make choice of Sir *Geoffry Fenton*'s daughter; and that if I could affect her, he would treat with her parents to have the match between us; wherein he prevailed ſo far, as the 9th of March 1602, I was, in his lordſhip's preſence, contracted to her in her father's houſe at *Dublin* *.

THE

* Dr. *Anthony Walker*, in p. 45, 46, of his funeral ſermon on *Mary*, counteſs dowager of *Warwick*, daughter to the earl of *Corke*, relates a very remarkable ſtory, concerning this marriage, which he had from that lady's own mouth, and is as follows: "Mr. *Boyle*, after earl of *Corke*, who was then a "widower,

THE 25th of July, 1603, I was married to my ſecond wife, Mrs. *Catharine Fenton*, the only daughter of Sir *Geoffry Fenton*, principal ſecretary of ſtate, and privy counſellor in *Ireland*, with whom I never

" widower, came one morning to wait upon Sir *Geoffry Fen-*
" *ton*, at that time a great officer of ſtate in the kingdom of
" *Ireland*; who being engaged in buſineſs, and not knowing
" who it was, who deſired to ſpeak with him, a while de-
" layed him acceſs, which time he ſpent pleaſantly with his
" young daughter in her nurſe's arms. But when Sir *Geoffry*
" came and ſaw whom he had made ſtay ſomewhat long, he
" civilly excuſed it. But Mr. *Boyle* replied, he had been very
" well entertained, and ſpent his time much to his ſatisfaction
" in courting his daughter, if he might obtain the honour to
" be accepted for his ſon-in-law. At which Sir *Geoffry* ſmil-
" ing, to hear one, who had been formerly married, move
" for a wife carried in arms, and under two years old, aſked
" him, if he would ſtay for her? To which he frankly an-
" ſwered him, he would; and Sir *Geoffry* as generouſly pro-
" miſed him, he ſhould then have his full conſent. And they
" both kept their words honourably; and by this virtuous
" lady he had thirteen children." Mr. *Evelyn*, in a letter to Dr. *William Wotton*, dated at *Wotton* in *Surrey*, Sept. 10th 1703, mentions likewiſe this ſtory in the following terms; " that Mr. *Boyle* coming to adviſe with Sir *Geoffry Fenton*,
" now knighted, finding him engaged with another client,
" and ſeeing a pretty child in the nurſe's arms, entertained
" himſelf with them, till Sir *Geoffry* came to him, making
" his excuſe for cauſing him to wait ſo long. Mr. *Boyle* plea-
" ſantly told him, he had been courting a young lady for his
" wife. And ſo it fortuned, that ſixteen years after, Mr.
" *Boyle* made his addreſſes in good earneſt, and married the
" young lady." Both theſe accounts are attended with great difficulties, eſpecially that of Dr. *Walker*, which is abſolutely irreconcilable with the earl of *Corke*'s own narrative, from which it appears, that his firſt lady died on the 14th of December 1599, and that he married his ſecond, Sir *Geoffry Fenton*'s daughter, on the 25th of July, 1603; ſo that it is impoſſible, that while he was *a widower*, he ſhould enter into any engagements for the latter, while ſhe was *in her nurſe's arms*, and *under two years old*, ſince there was only an interval of three years and eight months between the death of his firſt wife and his marriage with the ſecond.

demanded

demanded any marriage portion, neither promiſe of any, it not being in my conſideration; yet her father, after my marriage, gave me one thouſand pounds in gold with her. But that gift of his daughter unto me I muſt ever thankfully acknowledge as the crown of all my bleſſings; for ſhe was a moſt religious, virtuous, loving, and obedient wife unto me all the days of her life, and the happy mother of all my hopeful children, whom with their poſterity I beſeech God to bleſs.

THE 10th: of July 1620, my eldeſt brother, Dr: *John Boyle*, lord biſhop of *Corke* and *Roſs* departed this life at *Biſhop's-Court* near *Corke*; and on the 12th: of that month was buried in my new tomb, erected in the chapel, which I re-edified at *Youghall*. After whoſe death I obtained thoſe biſhoprics from his majeſty for my uncle *Michael Boyle*'s ſon, *Richard Boyle*, for whom I formerly obtained the deanery of *Waterford*, who now ſucceeds my brother in thoſe biſhoprics.

Wood's Athen 1721. Vol: I page: 726.

I *Richard*, earl of *Corke*, was knighted by Sir *George Carew*, lord deputy of *Ireland*, at St. *Mary*'s abbey, near *Dublin*, the 25th: of July: 1603, being St: *James*'s day, and the very day, that I was married to my ſecond wife, Mrs: *Catharine Fenton*. I was ſworn a privy counſellor to King *James* for the province of *Munſter* at the council table at *Dublin* by the lord *Chicheſter*, then lord deputy of *Ireland*, the 12th: of March: 1606, with commandment from the lord deputy and council to *Henry Dunkard*, then lord preſident of *Munſter*, to admit me into that council; who, upon former direction from this ſtate, had refuſed either to ſwear or admit me a counſellor of that province.

I WAS ſworn a privy counſellor of ſtate of the kingdom of *Ireland* by the lord *Chicheſter*, then lord deputy, at *Chicheſter* houſe, the 15th: of February

bruary being the day that I arrived out of *England* at *Dublin*, 1612.

I WAS created lord *Boyle*, baron of *Youghall*, on Michelmas day, the 29th of Sept. 1616.

I WAS created lord viſcount of *Dungarvan* and earl of *Corke*, the 26th of October 1620.

Adam lord *Loftus* of *Ely*, and lord chancellor of *Ireland*, and I, *Richard*, earl of *Corke*, were ſworn lords juſtices for the joint government of this kingdom of *Ireland*, the 26th of October 1629, with the entertainment of one hundred pounds ſterling per month to each of us.

I WAS made lord high treaſurer of *Ireland*, and ſworn the 9th of November 1631.

The ſeveral days of the births of all the children, that God hath bleſſed me withall, with the places where they were born, and the names of their godfathers and godmothers.

1. MY firſt ſon *Roger*, born at *Youghall* the 1ſt of Auguſt 1606. Sir *Allen Apſley*, Sir *Thomas Brown* godfathers, and lady *Alice Fenton* godmother. He died at *Deptford* in *Kent*, the 10th of October 1615, and was buried there [c].

[c] He died at *Say*'s-*Court* in that town, and was interred in the pariſh church, where a monument was erected to him with the following inſcription *:

Dr. Thorpe's Regiſtrum Roffense: 1769 fo: 946.

H: S: E: *ROGERUS BOYLE, Richardi Comitis Corcacienſis Filius primogenitus; qui in Hiberniâ natus, in Cantio ſolo patris natali denatus, dum hic ingenii cultum capeſſit, puer eximiæ indolis præcacitatem ingenii funere luit immaturo. Sic luculenti, ſed terreni patrimonii factus exhæres, cæleſtem cræuit hæreditatem. Deceſſit Anno* CIↃDCXV: VI: *Eid.* VIII*bris.*

* Doctor *George Stanhope*'s letter to *John Evelyn*, Eſq; dated Sept. 6, 1703, and Mr. *Evelyn*'s letter to Dr. *W. Wotton*, dated at *Wotton* in *Surrey*, Sept. 10, 1703.

2. MY

2. My first daughter, *Alice Boyle*[f], born at *Youghall*, the 20th of March 1607; Sir *Robert Tynt* godfather, lady *Fenton* and Mrs. *Bernard* godmothers.

3. My second daughter, *Sarah Boyle*, born at *Dublin*, the 29th of March, 1609; Sir *William Usher* godfather, lady *Winch* and lady *Ely* godmothers. She was married to Sir *Thomas Moore* first, and then to lord *Robert Digby*, the 15th of December 1626.

4. My third daughter, *Lettice*[g], born the 25th of April 1610; earl of *Thomond* godfather, lady *Chichester* and lady *Moore* godmothers.

5. My fourth daughter, *Joan*, born the 14th of June 1611; Sir *William Fenton* godfather, and — *Brown* and lady *Fenton* godmothers. She was married to the earl of *Kildare*, August 15, 1628, and had two children, *Richard* and *Elizabeth*.

6. My second son, *Richard*, was born at the college of *Youghall*, the 20th of October 1612; earl of *Thomond*, Sir *Richard Aldworth*, and Mr. *Thomas Ball* of *London*, godfathers, and lady *Ann Parsons* godmother. God grant he may serve and fear him religiously, and be a faithful subject and servant to the king's majesty and his heirs, and live many years full of good works and of virtuous children, and be a worthy pillar and patriot in this kingdom. He being viscount of *Dungarvan*, was knighted in my house in *Youghall* the 13th of Aug. 1624, by the lord *Falkland*, lord deputy general of *Ireland*; and my said son departed *Dublin*, to begin his travels into foreign kingdoms, the 4th of June 1632, I allowing him one thousand pounds a year in his travels.

[f] Married to the earl of *Barrimore*.
[g] Married to the lord *Goring*.

7. My

7. My daughter *Catharine* [h], born the 22d of March 1614; Sir *Robert Bolton* godfather, lady *Fenton* and lady *Harris* godmothers.

8. My ſon *Jeoffry*, born at *Youghall* the 10th of April 1616. He died.

9. My daughter *Dorothy*, born the 31ſt of December 1617. She was married to lord *Loftus*.

10. My ſon *Lewis*, born the 23d of May 1619, and in the year 1628 he was created baron of *Bandonbridge*, and lord viſcount *Boyle* of *Kenelmeaky*.

11. My ſon *Roger*, born the 25th of April 1621. He was created lord *Boyle*, baron of *Broghill*, 1628.

12. My ſon *Francis* [i], born the 25th of June 1623.

13. My daughter *Mary* [k], born the 11th of November 1624.

14. My ſeventh ſon *Robert*, born the 25th of January 1626.

15. My eighth and laſt daughter *Margaret* [l], born in *Channel-Row* in *Weſtminſter* the 30th of April 1629.

The great God of heaven I do humbly and heartily beſeech, to bleſs all theſe my children, whom he hath in his mercy ſo graciouſly beſtowed upon me, with long and religious lives, and that they may be fruitful in virtuous children and good works, and continue till their lives end loyal and dutiful ſubjects to the king's majeſty and his heirs, and approve themſelves good patriots and members to his commonwealth; which is the prayer and charge of me their father in the 67th year of my age, 1632.

[h] Married to the lord viſcount *Ranelagh*.
[i] Afterwards lord *Shannon*.
[k] Married to the earl of *Warwick*.
[l] She died unmarried.

My

MY dear wife, the crown of all my happineſs, and mother of all my children, *Catharine* counteſs of *Corke*, was tranſlated at *Dublin* from this life into a better the 16th of February 1629-30, and was the 17th privately buried in the night in the upper end of the choir of St. *Patrick*'s church in *Dublin*, in the grave or vault, wherein Dr. *Weſton*, her grandfather, and good lord chancellor of *Ireland*, and Sir *Geoffry Fenton*, his majeſty's principal ſecretary of ſtate for this realm, were entomb'd. Her funerals were honourably ſolemnized in publick the 11th of March *anno Domini* 1629. In the perpetual memory of which my virtuous and religious deceaſed wife, and of her predeceſſors and poſterity, I have cauſed a very fair tomb to be erected, with a cave or cellar of hewed ſtone underneath it.

I HAVE purchaſed from the dean and chapter of St. *Patrick*'s church the inheritance of that upper part of the chancel, wherein the cave or cellar under ground is made, and wherein the tomb is built, to be a burying place for me and my poſterity, and their children."

THIS noble earl continued in great proſperity till the breaking out of the rebellion in *Ireland* in 1641; and the county of *Corke* was the laſt, that ſuffered under the violences of the papiſts, being the beſt inhabited with Engliſh of any part of that kingdom, by the plantations made by his lordſhip, and was in a great meaſure preſerved by his generoſity and diligence. He was then juſt returned out of *England*, and on this irruption immediately raiſed two troops of horſe, which he put under the command of his ſons, the lord viſcount

Kinelmeaky

Kinelmeaky and the lord *Broghill*, maintaining them and 400 foot for ſome months at his own charge [m]; and at the battle of *Liſtarrol*, on the 3d: of September 1642, wherein the Engliſh obtained a compleat victory, had no leſs than four of his ſons engaged, viz: his eldeſt ſon the lord viſcount *Dungarvan*, the lord viſcount *Kinelmeaky*, the lord *Broghill*, and Mr: *Francis Boyle*, afterwards created lord viſcount *Shannon*. But in this engagement he had the misfortune of loſing one of his ſons, the lord *Kinelmeaky*, governor of *Bandon*, who in ſeveral encounters had defeated the rebels, and with his father and brothers preſerved the county of *Corke* [n]. At length this great man, in the midſt of theſe confuſions, departed this life at *Youghall*, and was interred there near the date (if not on the day) of the ceſſation of arms concluded at *Sigginſtown*, Sept: 15, 1643 [o], *unwilling to ſurvive what he ſuſpected might not be auſpicious to the Engliſh, or conducible to the end, for which it was deſigned; wherein he propheſied not ill* [p]. Mr: *Borlaſe* tells us [q], that his lordſhip "was a perſon, for his abilities and knowledge in the affairs of the world, eminently obſervable, inaſmuch, as though he was no peer of *England*, he was admitted to ſit in the lords houſe upon the wool-ſacks, *ut conſiliarius*. And for all the eſtate he arrived at, (which was the greateſt in the memory of the laſt age) none ever taxed him with exorbitances, but ſuch as thought princes had too little, and religious men not enough" Another writer [r] likewiſe gives

Masters's H: C: C: C: Camb 1753. p: 230.

[m] *Cox*'s Hiſtory of *Ireland*, Vol: II: p: 95.
[n] Ibid: p: 112.
[o] *Borlaſe*, Reduction of *Ireland*, p: 209.
[p] Id. ibid: [q] Ibid:
[r] *Cox*, Introduction to the ſecond volume of his Hiſtory of *Ireland*.

him

him this character, that he was " one of the moſt " extraordinary perſons, either that or any other " age hath produced, with reſpect to the great " and juſt acquiſitions of eſtate, that he made, " and the publick works, that he began and fi- " niſhed, for the advancement of the Engliſh in- " tereſt and the proteſtant religion in *Ireland*; as " churches, alms-houſes, free-ſchools, bridges, ca- " ſtles, and towns, *viz Liſmore*, *Tallow*, *Clogh- " makilty*, *Iniſkeen*, *Caſtletown*, and *Bandon*, (which " laſt place coſt him 14000 *l.*) inſomuch that " when *Cromwell* ſaw theſe prodigious improve- " ments, which he little expected to find in *Ireland*, " he declared, that *if there had been an earl of* " Corke *in every province, it would have been im- " poſſible for the Iriſh to have raiſed a rebellion.* And " whilſt he was carrying on theſe ſolid works, he " lived in his family at a rate of plenty, that ex- " ceeded thoſe, who conſumed great eſtates in the " laviſh ways of ill-ordered exceſs. His motto, " *God's providence is my inheritance*, ſhews, from " whence he derived all his bleſſings; the greateſt " of which was the numerous and noble poſterity " he had to leave his eſtate unto."

ROBERT BOYLE, Eſq; his ſeventh and youngeſt ſon, and one of the greateſt ornaments of this noble family, as well as the age and country, in which he lived, has left us ſome memoirs of the younger part of his life, drawn up ſoon after his return from his travels, which the reader will undoubtedly chooſe to read in his own words.

An Account of *PHILARETUS*, [i. e. Mr. *R. BOYLE*,] during his Minority.

NOT needleſsly to confound the herald with the hiſtorian, and begin a relation by a pedigree, I ſhall content myſelf to inform you, that the immediate parents of our *Philaretus* were, of the female ſex, [*Catharine*, daughter of Sir *Geoffry Fenton*] a woman, that wanted not beauty, and was rich in virtue, and on the father's ſide, that *Richard Boyle*, earl of *Corke*, who, by God's bleſſing on his proſperous induſtry, from very inconſiderable beginnings, built ſo plentiful and ſo eminent a fortune, that his proſperity has found many admirers, but few parallels.

HE was born the 14th child of his father (of which five women, and four men, do yet ſurvive) in the year 1626-7, upon St. *Paul*'s converſion day,[a] at a country-houſe of his father's, called *Liſmore*, then one of the nobleſt ſeats and greateſt ornaments of the province of *Munſter*, in which it ſtood; but now ſo ruined by the ſad fate of war, that it ſerves only for an inſtance and a lecture of the inſtability of that happineſs, that is built upon the uncertain poſſeſſion of ſuch fleeting goods, as itſelf was.

[a] 25. January.

To be ſuch parents ſon, and not their eldeſt, was a happineſs, that our *Philaretus* would mention with great expreſſions of gratitude; his birth ſo ſuiting his inclinations, and deſigns, that, had he been permitted an election, his choice would ſcarce have altered God's aſſignment. For as on the one ſide, a lower birth would have too much

expoſed

expoſed him to the inconveniences of a mean deſcent, which are too notorious to need ſpecifying; ſo on the other ſide, to a perſon, whoſe humour indiſpoſes him to the diſtracting hurry of the world, the being born heir to a great family is but a glittering kind of ſlavery, whilſt obliging him to a publick entangled courſe of life, to ſupport the credit of his family, and tying him from ſatisfying his deareſt inclinations, it often forces him to build the advantages of his houſe upon the ruins of his own contentment.

A MAN of mean extraction is ſeldom admitted to the privacy and ſecrets of great ones promiſcuouſly, and ſcarce dares pretend to it, for fear of being cenſured ſaucy, or an intruder; and titular greatneſs is ever an impediment to the knowledge of many retired truths, that cannot be attained without familiarity with meaner perſons, and ſuch other condeſcenſions, as fond opinion, in great men, diſapproves and makes diſgraceful.

BUT now our *Philaretus* was born in a condition, that neither was high enough to prove a temptation to lazineſs, nor low enough to diſcourage him from aſpiring. And certainly to a perſon, that affected ſo much an univerſal knowledge, and arbitrary viciſſitudes of quiet and employments, it could not be unwelcome to be of a quality, that was a handſom ſtirrup to preferment, without an obligation to court it, and which might at once both protect his higher pretenſions from the guilt of ambition, and ſecure his retiredneſs from contempt.

WHEN once *Philaretus* was able, without danger, to ſupport the incommodities of a remove, his father, who had a perfect averſion for their fondneſs, who uſe to breed their children ſo nice and tenderly, that a hot ſun, or a good ſhower of rain, as much endangers them, as if they were made of

butter, or of ſugar, ſends him away from home, and commits him to the care of a country nurſe, who by early inuring him, by ſlow degrees, to a coarſe but cleanly diet, and to the uſual paſſions of the air, gave him ſo vigorous a complexion, that both hardſhips were made eaſy to him by cuſtom, and the delights of conveniences and eaſe were endeared to him by their rarity.

Some few years after this, two great diſaſters befel *Philaretus*; the one was the deceaſe of his mother, whoſe death would queſtionleſs have exceſſively afflicted him, had but his age permitted him to know the value of his loſs; for he would ever reckon it amongſt the chief misfortunes of his life, that he did never know her, that gave it him, her free and noble ſpirit (which had a handſom manſion to reſide in) added to her kindneſs and ſweet carriage to her own, making her ſo hugely regretted by her children, and ſo lamented by her huſband, that not only he annually dedicated the day of her death to ſolemn mourning for it, but burying in her grave all thoughts of after marriage, he rejected all motions of any other match, continuing a conſtant widower till his death.

Mocking is Catching.

The ſecond misfortune, that befel *Philaretus*, was his acquaintance with ſome children of his own age, whoſe ſtuttering habitude he ſo long counterfeited, that at laſt he contracted it; poſſibly a juſt judgment upon his deriſion, and turning the effects of God's anger into the ſubject matter of his ſport. Divers experiments, believed the probableſt means of cure, were tried with as much ſucceſsleſſneſs as diligence; ſo contagious and catching are men's faults, and ſo dangerous is the familiar commerce of thoſe condemnable cuſtoms, that being imitated but in jeſt, come to be learned and acquired in earneſt.

But

BUT to ſhow, that theſe afflictions made him not leſs the object of heaven's care, he much about this time eſcaped a danger, from which he owed his deliverance wholly to providence, being ſo far from contributing to it himſelf, that he did his endeavour to oppoſe it: for waiting on his father up to *Dublin*, there to expect the return of his eldeſt brother (then landed out of *England*, with his new wife, the earl of *Cumberland*'s heir) as they were to paſs over a brook, at that time ſuddenly by immoderate ſhowers ſwelled to a torrent, he was left alone in a coach, only with a foot-boy, where a gentleman of his father's very well horſed accidentally eſpying him, in ſpite of ſome others and his own unwillingneſs and reſiſtance, (they not believing his ſtay dangerous) carried him in arms over the rapid water, which proved ſo much beyond expectation both ſwift and deep, that horſes with their riders were violently hurried down the ſtream, which eaſily overturned the unloaded coach, the horſes (after by long ſtruggling they had broke their harneſs) with much ado ſaving themſelves by ſwimming.

As ſoon as his age made him capable of admitting inſtruction, his father by a Frenchman, and by one of his chaplains, had him taught both to write a fair hand, and to ſpeak French and Latin, in which, eſpecially the firſt, he proved no ill proficient, adding to a reaſonable forwardneſs in ſtudy a more than uſual inclination to it.

THIS ſtudiouſneſs obſerved in *Philaretus* endeared him very much unto his father, who uſed highly to commend him both for it and his veracity, of which latter he would often give him this teſtimony, that he never found him in a lie in all his life-time. And indeed lying was a vice both ſo contrary to his nature, and ſo inconſiſtent with his

principles, that as there was ſcarce any thing he more greedily deſired than to know the truth, ſo was there ſcarce any thing he more perfectly deteſted, than not to ſpeak it: which brings into my mind a fooliſh ſtory I have heard him jeered with by his ſiſter my lady *Ranelagh*, how ſhe having given ſtrict order to have a fruit-tree preſerved for his ſiſter-in-law, the lady *Dungarvan*, then big with child, he accidentally coming into the garden, and ignoring the prohibition, did eat half a ſcore of them, for which being chidden by his ſiſter *Ranelagh*, (for he was yet a child) and being told by way of aggravation, that he had eaten half a dozen plumbs, Nay truly, ſiſter, (anſwers he ſimply to her) I have eaten half a ſcore. So perfect an enemy was he to a lie, that he had rather accuſe himſelf of another fault, than be ſuſpected to be guilty of that. This trivial paſſage I have mentioned now, not that I think, that in itſelf it deſerves a relation, but becauſe as the ſun is ſeen beſt at his riſing and his ſetting, ſo men's native diſpoſitions are clearlieſt perceived, whilſt they are children, and when they are dying. And certainly theſe little ſudden accidents are the greateſt diſcoverers of mens true humours; for whilſt the inconſiderateneſs of the thing affords no temptation to diſſemble, and the ſuddenneſs of the time allows no leiſure to put diſguiſes on, men's diſpoſitions do appear in their true genuine ſhape, whereas moſt of thoſe actions, that are done before others, are ſo much done for others; I mean moſt ſolemn actions are ſo perſonated, that we may much more probably gueſs from thence, what men deſire to ſeem, than what they are; ſuch publick formal acts much rather being adjuſted to men's deſigns, than flowing from their inclinations.

Philaretus

Philaretus had now attained, and somewhat past the eighth year of his age, when his father (who supplied what he wanted in scholarship himself, by being both a passionate affecter, and eminent patron of it) ambitious to improve his early studiousness, and considering, that great men's children ~~breeding~~ bred up at home tempts them to nicety, to pride, and idleness, and contributes much more to give them a good opinion of themselves, than to make them deserve it, resolves to send over *Philaretus* in the company of Mr. *F. B.* his elder brother, to be bred up at *Eton* college near *Windsor*, whose provost at that time was Sir *Henry Wotton*, a person, that was not only a fine gentleman himself, but very well skilled in the art of making others so, betwixt whom and the earl of *Corke* an ancient friendship had been constantly cultivated by reciprocal civilities. To him therefore the good old earl recommends *Philaretus*, who having laid a week at *Youghall* for a wind, when he first put to sea, was by a storm beaten back again, not only a taste, but an omen of his future fortune. But after eight days further stay, upon the second summons of a promising gale, they went aboard once more, and (though the Irish coasts were then sufficiently infested with Turkish gallies) having by the way touched at *Ilfordcombe*, and *Minehead*, at last they happily arrived at *Bristol*.

Philaretus, in the company of his brother, after a short stay to repose and refresh themselves at *Bristol*, shaped his journey directly for *Eton* college, where a gentleman of his father's, sent to convey them thither, departing, recommended him to the especial care of Sir *Henry Wotton*, and left with him, partly to instruct, and partly to attend him, one *R. C.* one that wanted neither vices, nor cunning to dissemble them; for though his primitive

tive fault was only a dotage upon play, yet the exceſſive love of that goes ſeldom unattended with a train of criminal retainers; for fondneſs of gaming is the ſeducingeſt lure to ill company, and that the ſubtleſt pander to the worſt exceſſes. Wherefore our *Philaretus* deſervedly reckoned it, both amongſt the greateſt and the unlikelieſt deliverances he owed providence, that he was protected from the contagion of ſuch precedents; for though the man wanted not a competency of parts, yet perverted abilities make men but like thoſe wandring fires, philoſophers call *ignes fatui*, whoſe light ſerves not to direct, but to ſeduce the credulous traveller, and allure him to follow them in their deviations. And it is very true, that during the minority of judgment, imitation is the regent in the ſoul, and thoſe, that are leaſt capable of reaſon, are moſt ſwayed by example. A blind man will ſuffer himſelf to be led, though by a dog, or a child.

Not long our *Philaretus* ſtaid at ſchool, ere his maſter, Mr. *Harriſon*, taking notice of ſome aptneſs, and much willingneſs, in him to learn, reſolved to improve them both by all the gentleſt ways of encouragement; for he would often diſpenſe from his attendance at ſchool, at the accuſtomed hours, to inſtruct him privately and familiarly in his chamber. He would often as it were cloy him with fruit and ſweetmeats, and thoſe little dainties, that age is greedy of, that by preventing the want, he might leſſen both his value and deſire of them. He would ſometimes give him unaſked play-days, and oft beſtow upon him ſuch balls, and tops, and other implements of idleneſs, as he had taken away from others, that had unduly uſed them. He would ſometimes commend others before him, to rouſe his emulation, and oftentimes

tentimes give him commendations before others, to engage his endeavours to deſerve them. Not to be tedious, he was careful to inſtruct him in ſuch an affable, kind, and gentle way, that he eaſily prevailed with him to conſider ſtudying, not ſo much as a duty of obedience to his ſuperiors, but as the way to purchaſe for himſelf a moſt delightſom and invaluable good. In effect, he ſoon created in *Philaretus* ſo ſtrong a paſſion to acquire knowledge, that what time he could ſpare from a ſcholar's taſk, which his retentive memory made him not find uneaſy, he would uſually employ ſo greedily in reading, that his maſter would ſometimes be neceſſitated to force him out to play, on which, and upon ſtudy, he looked, as if their natures were inverted. But that, which he related to be the firſt occaſion, that made him ſo paſſionate a friend to reading, was, the accidental peruſal of *Quintus Curtius*, which firſt made him in love with other than pedantick books, and conjured up in him that unſatisfied appetite of knowledge, that is yet as greedy, as when it firſt was raiſed. In gratitude to this book, I have heard him hyperbolically ſay, that not only he owed more to *Quintus Curtius*, than *Alexander* did; but derived more advantage from the hiſtory of that great monarch's conqueſts, than ever he did from the conqueſts themſelves.

WHILST our youth was thus buſied about his ſtudies, there happened to him an accident, that ſilence muſt not cover: for being one night gone to bed, ſomewhat early, whilſt his brother was converſing with ſome company by the fire-ſide, without giving them the leaſt warning or ſummons to take heed, a great part of the wall of their chamber, with the bed, chairs, books, and furniture of the next chamber over it, fell down, at unawares,

unawares, upon their heads. His brother had his band torn about his neck, and his coat upon his back, and his chair crushed and broken under him; but by a lusty youth, then accidentally in the room, was snatched from out the ruins, by which *Philaretus* had, in all probability, been immediately oppressed, had not his bed been curtained by a watchful providence, which kept all heavy things from falling on it; but the dust the crumbled rubbish raised was so thick, that he might there have been stifled, had not he remembred to wrap his head in the sheet, which served him as a strainer, through which none but the purer air could find a passage. So sudden a danger, and hasty an escape, *Philaretus* would sometimes mention, with expressions both of gratitude and wonder. To which he would add the relation of divers other almost contemporary deliverances: of these, one was, that, being fallen from his horse, the beast ran over him, and trod so near his throat, as within less than two inches of it to make a hole in his band, which he long after reserved for a remembrancer. Another was, that riding through a town, upon a nag of his own, whose starting quality he never observed before, his horse, upon a sudden fright, rose bolt upright upon his hinder feet, and falling rudely backward with all his weight against a wall, had infallibly crushed his rider into pieces, if, by a strange instinct, he had not cast himself off at first, and was quit of it for a slight bruise. The last was, *Philaretus* being newly recovered of a flux, the doctor had prescribed him a refreshing drink: the fellow, that should administer it, instead of it, brings him a very strong vomit, prepared and intended for another. *Philaretus* was that morning visited by some of his school-fellows, who (as he was not ill beloved amongst them) presented him

with

with ſome ſweetmeats, which having eaten, when afterwards he would have eaten his breakfaſt, his ſtomach, whether out of ſqueamiſhneſs, or divination, forced him to render it again. To which lucky accident the phyſician aſcribed his eſcape from the apothecary's error; for in the abſence of thoſe, that tended him, his phyſick caſt him into hideous torments, the true cauſe of which he never dreamed of, and remained long unconjectured, until the effects betrayed it; for after a long ſtruggling, at laſt the drink wrought with ſuch violence, that they feared, that his life would be diſgorged together with his potion. This accident made him long after apprehend more from the phyſicians, than the diſeaſe, and was poſſibly the occaſion, that made him afterwards ſo inquiſitively apply himſelf to the ſtudy of phyſick, that he might have the leſs need of them, that profeſs it. But *Philaretus* would not aſcribe any of theſe reſcues unto chance, but would be ſtill induſtrious to perceive the hand of heaven in all theſe accidents; and indeed he would profeſs, that in the paſſages of his life, he had obſerved ſo gracious and ſo peculiar a conduct of providence, that he ſhould be equally blind and ungrateful, ſhould he not both diſcern and acknowledge it.

Philaretus having now for ſome two years been a conſtant reſident at *Eton* (if you except a few viſits, which, during the long vacations, he made his ſiſter my lady *Goring* at *Lewes* in *Suſſex*, whom about *Eaſter* he was ſent for up to *London* to ſee his eldeſt brother the lord *Dungarvan*, where being viſited with a tertian ague, after the queen's and others doctors remedies had been ſucceſſleſsly aſſayed, at laſt he returned again to *Eton* to derive that health from a good air and diet, which phyſick could not give him. There to divert his melan-

choly, they made him read the ſtate adventures of *Amadis de Gaule*, and other fabulous and wandring ſtories, which much more prejudiced him, by unſettling his thoughts, than they could have advantaged him, had they affected his recovery; for meeting in him with a reſtleſs fancy, then made more ſuſceptible of any impreſſions by an unemployed penſiveneſs, they accuſtomed his thoughts to ſuch a habitude of roving, that he has ſcarce ever been their quiet maſter ſince, but they would take all occaſions to ſteal away, and go a-gadding to objects then unſeaſonable and impertinent; ſo great an unhappineſs it is for perſons, that are born with ſuch buſy thoughts, not to have congruent objects propoſed to them at firſt. It is true, that long time after *Philaretus* did in a conſiderable meaſure fix his volatile fancy, and reclaim his thoughts, by the uſe of all thoſe expedients he thought likelieſt to fetter, or at leaſt to curb the roving wildneſs of his wandring thoughts. Amongſt all which the moſt effectual way he found to be the extraction of the ſquare and cube roots, and eſpecially thoſe more laborious operations of algebra, which both accuſtom and neceſſitate the mind to attention, by ſo entirely exacting the whole man, that the ſmalleſt diſtraction, or heedleſſneſs, conſtrains us to renew our trouble, and re-begin the operation. Six weeks had *Philaretus* been troubled with his ague, when he was freed from it by an accident, which is no ſlender inſtance of the force of imagination; for the phyſician having ſent him a purge, to give (as he ſaid) the fatal blow to the diſeaſe, our *Philaretus* had ſo perfect an averſion to all phyſic, and had newly aſſayed it ſo unſucceſsfully, that his complaints induced the maid ſervants of the houſe he lodged in (partly out of complaiſance to him, and partly

out

out of a belief, that phyſic did but exaſperate his diſeaſe) unknown to him, to pour out the potion, and fill the vial with ſyrup of ſtewed prunes, a liquor ſo reſembling it, that *Philaretus* (ſee the force of fancy!) ſwallowed it with the ſame reluctancy, and found the taſte as loathſom as if it had been the purge; but being after acquainted with the couſenage, whether it was, that his ſickneſs (as having already reached its period) would have expired of itſelf, or that his mirth diſpatched it, I pretend not to determine; but certain it is, that from that hour to this, agues and he have ſtill been perfect ſtrangers, and he had much ado to refrain from laughter, when going to thank and reward the doctor for his recovery, he found it wholly aſcribed to the efficacy of the potion he had never ſwallowed, but in imagination.

HE had now ſerved well near half an apprenticeſhip at ſchool, when there arrived intelligence of his father's being landed in *England*, and gone to *Stalbridge*, a place in *Dorſetſhire* then newly purchaſed by him. Thither *Philaretus* accompanies his ſiſter the counteſs of *Kildare* to wait upon him. The good old earl welcomed him very kindly, for whether it were to the cuſtom of old people (as *Jacob* doted moſt on *Benjamin* and *Joſeph*) to give their eldeſt children the largeſt proportions of their fortunes, but the youngeſt the greateſt ſhare of their affections; to a likeneſs obſerved in *Philaretus*, both to his father's body and his mind; or, as it ſeems moſt likely, to his never having lived with his father to an age, that might much tempt him to run in debt, and take ſuch other courſes to provoke his diſlike, as in his elder children he ſeverely diſreliſhed; to which of theſe cauſes the effect is to be aſcribed, it is not my taſk to reſolve, but certain it is, that from *Philaretus*'s birth, untill

his

his father's death, he ever continued very much his favourite. But after ſome weeks enjoyment of the ſummer diverſions at *Stalbridge*, when his father removed to *London*, he left him by the way at *Eton* college, from whence at his return into the Weſt, ſome few months after, he took him abſolutely away, after *Philaretus* had ſpent in that ſchool (then very much thronged with young nobility) not much beneath four years, in the laſt of which he forgot much of that *Latin* he had got, for he was ſo addicted to more ſolid parts of knowledge, that he hated the ſtudy of bare words naturally, as ſomething, that reliſhed too much of pedantry to conſort with his diſpoſition and deſigns; ſo that by the change of his old courteous ſchoolmaſter for a new rigid fellow, loſing thoſe encouragements, that had formerly ſubdued his averſion to verbal ſtudies, he quickly quitted his Terence and his grammar, to read in hiſtory their gallant acts, that were the glory of their own, and the wonder of our times. And indeed it is a much nobler ambition to learn to do things, that may deſerve a room in hiſtory, than only to learn, how congruouſly to write ſuch actions in the gownmen's language.

As ſoon as *Philaretus* was arrived at *Stalbridge*, his father aſſigned the care of teaching him to one Mr. *W. Douch*, then parſon of that place, and one of his chaplains; and, to avoid the temptations to idleneſs, that home might afford, made him both lodge and diet where he was taught, though it were not diſtant from his father's houſe above twice a muſket-ſhot. This old divine inſtructing our youth both with care and civility, ſoon brought him to renew his firſt acquaintance with the Roman tongue, and to improve it ſo far, that in that language he could readily enough expreſs himſelf in proſe, and

began

began to be no dull proficient in the poetic ſtrain; which latter he was naturally addicted to, reſenting a great deal of delight in the converſation of the Muſes, which nevertheleſs he ever ſince that time forbore to cultivate; not out of any diſlike or undervaluing of poetry, but becauſe in his travels having by diſcontinuance forgot much of the Latin tongue, he afterwards never could find time to redeem his loſſes by a ſerious ſtudy of the ancient poets. And then for Engliſh verſes, he ſaid, they could not be certain of a laſting applauſe, the changes of our language being ſo great and ſudden, that the rareſt poems within few years will paſs for obſolete; and therefore he uſed to liken the writers in Engliſh verſe to ladies, that have their pictures drawn with the clothes now worn, which, though at preſent never ſo rich, and never ſo much in faſhion, within a few years hence will make them look like anticks. Yet did he at idle hours write ſome few verſes, both in French and Latin, and many copies of amorous, merry, and devout ones in Engliſh; moſt of which, uncommunicated, the day he came of age, he ſacrificed to Vulcan, with a deſign to make the reſt periſh by the ſame fate, when they came within his power, though amongſt them were many ſerious copies, and one long one, amongſt the reſt, againſt wit profanely or wantonly employed; thoſe two vices being ever perfectly deteſted by him in others, and religiouſly declined in all his writings.

ABOUT this time alſo *Philaretus* began to be taught ſome ſkill in the muſic, both of the voice, and hand; but the diſcouragement of a bad voice quickly perſuaded him to deſiſt. It was now the ſpring of the year, when news was brought to *Stalbridge* of the approach of his ſiſter, the lady *Goring*, and in her company two of his brothers, the lords

of

of *Kinelmeaky* and of *Broghill*, then newly returned from their three years travels. In their company arrived one Mr. *Marcombes*, a French gentleman, who had been their governor, and behaved himſelf ſo handſomly in that relation, that the old earl removed *Philaretus* (his brother lying ſick at a doctor's houſe) to his own houſe again, and intruſted his whole education with this gentleman. He was a man, whoſe garb, his mien, and outſide, had very much of his nation, having been divers years a traveller and a ſoldier; he was well faſhioned, and very well knew, what belonged to a gentleman. His natural were much better than his acquired parts, though divers of the latter he poſſeſſed, though not in an eminent, yet in a very competent degree. Scholarſhip he wanted not, having in his greener years been a profeſſed ſtudent in divinity; but he was much leſs read in books than men, and hated pedantry as much as any of the ſeven deadly ſins. Thrifty he was extremely, and very ſkilful in the ſlights of thrift; but leſs out of avarice, than a juſt ambition, and not ſo much out of love to money, as a deſire to live handſomly at laſt. His practical ſentiments in divinity were moſt of them very ſound; and if he were given to any vice himſelf, he was careful by ſharply condemning it, to render it uninfectious, being induſtrious, whatſoever he were himſelf, to make his charges virtuous. Before company he was always very civil to his pupils, apt to eclipſe their failings, and ſet off their good qualities to the beſt advantage; but in his private converſation he was Cynically diſpoſed, and a very nice critick both of words and men; which humour he uſed to exerciſe ſo freely with *Philaretus*, that at laſt he forced him to a very cautious and conſiderate way of expreſſing himſelf, which after turned to his no ſmall

advantage. The worſt quality he had was his choler, to exceſſes of which he was exceſſively prone; and that being the only paſſion, to which *Philaretus* was much obſerved to be inclined, his deſire to ſhun claſhing with his governor, and his accuſtomedneſs to bear the ſudden ſallies of his impetuous humour, taught our youth ſo to ſubdue that paſſion in himſelf, that he was ſoon able to govern it habitually and with eaſe; the continuance of which conqueſt he much acknowledged to that paſſage of St. *James*, *For the wrath of man worketh not the righteouſneſs of God*, James i. 20. And he was ever a ſtrict obſerver of that precept of the apoſtle, *Let not the ſun go down upon your wrath*; for continued anger turns eaſily to malice; which made him, upon occaſion of this ſentence of St. *Paul*, to ſay, that anger was like the Jewiſh manna, which might be wholeſom for a day or two, but if it were kept long, it would breed worms, and corrupt. With this new governor our *Philaretus* ſpent the greateſt part of the ſummer, partly in reading and interpreting the *Univerſal Hiſtory*, written in Latin, and partly in familiar kind of converſation in French, which *Philaretus* found equally diverting and inſtructive, which was as well conſonant to the humour of his tutor as his own.

Numbers: xi. 19. #

ABOUT this time his eldeſt brother, the lord of *Dungarvan*, having at his own charges raiſed a gallant troop of horſe for the King's ſervice in the Scotch expedition, his father ſent two other of his ſons, *Kinelmeaky* and *Broghill*, to accompany him in that ſervice, and deſigned *Philaretus* for the ſame employment; but the ſickneſs of his next elder brother, Mr. *F.* whom he was to go along with in that voyage, defeated all our young man's greedy hopes. During his ſtay at *Stalbridge* all that ſummer, his father, to oblige him to be temperate, by

freely giving him the opportunity to be otherwiſe, truſted him with the keys of all his gardens and orchards. And indeed *Philaretus* was little given to greedineſs, either in fruits or ſweetmeats; in the latter he was almoſt abſtemious, and in the former he was very moderate; ſo valuing ſuch niceties and dainties, that though he enjoyed them with delight, he could want them without the leaſt regret. During this pleaſing ſeaſon, when the intermiſſion of his ſtudies allowed *Philaretus* leiſure for recreations, he would very often ſteal away from all company, and ſpend four or five hours alone in the fields, and think at random, making his delighted imagination the buſy ſcene, where ſome romance or other was daily acted; which, though imputed to his melancholy, was in effect but an uſual excurſion of his yet untamed habitude of roving, a cuſtom (as his own experience often and ſadly taught him) much more eaſily contracted, than deſtroyed.

TOWARDS the end of this ſummer, the kingdom having now attained a ſeeming ſettlement by the King's pacification with the Scots, there arrived at *Stalbridge* Sir *Thomas Stafford*, gentleman uſher to the Queen, with his lady, to viſit their old friend, the earl of *Cork*, with whom, ere they departed, they concluded a match betwixt his fourth ſon, Mr: *F*: *B*: and *E*: *K*: [*Killegrew*] daughter to my lady *S*: by Sir — *K*. and then a maid of honour, both young and handſom. To make his addreſſes to this lady, Mr: *F*: was ſent (and *Philaretus* in his company) before up to *London*, whither within few weeks they were followed by the earl and his family, of which a great part lived at (the lady *Stafford*'s houſe) the *Savoy*; the reſt (for his family was much encreaſed by the acceſſion of his daughters, the counteſs of *Barrimore* and the lady

Ranelagh, with their lords and children) were lodged in the adjacent houſes, but took their meals in the *Savoy*, where the old earl kept ſo plentiful a houſe, that in months his accompts for bare houſe-keeping exceeded pounds.

NOT long after his arrival, *Philaretus*'s brother having been ſucceſsful in his addreſſes to his miſtreſs, was, in the preſence of the King and Queen, publickly married at court, with all that ſolemnity, that uſually attends matches with maids of honour. But to render this joy as ſhort as it was great, *Philaretus* and his brother were within four days after commanded away for *France*, and after having kiſſed their Majeſty's hands, they took a differing farewel of all their friends; the bridegroom extremely afflicted to be ſo ſoon deprived of a joy, which he had taſted but juſt enough of to encreaſe his regrets, by the knowledge of what he was forced from; but *Philaretus* as much ſatisfied to ſee himſelf in a condition to content a curioſity, to which his inclinations did paſſionately addict him. With theſe differing reſentments of their father's commands, accompanied by their governor, two French ſervants, and a lacquey of the ſame country, upon the end of *October* 1638, they took poſt for *Rye* in *Suſſex*, where the next day hiring a ſhip, though the ſea were not very ſmooth, a proſperous puff of wind did ſafely by the next morning blow them into *France*.

AFTER a ſhort refreſhment at *Dieppe*, they travelled through *Normandy* to the chief city of it, *Rouën*; but by the way received advertiſement of a robbery freſhly committed in a wood, they muſt traverſe by night; but judging the fear of being apprehended would deter the robbers from a ſudden return to the ſame place, after ſo recent a crime, the company quietly continued on their

journey to *Rouën*, and arrived ſafely at it; where, amongſt other ſingularities, *Philaretus* took much notice of a great floating bridge, which riſing and falling as the tide-water does, he uſed to reſemble to the vain amoriſts of outward greatneſs, whoſe ſpirits reſent all the floods and ebbs of that fortune it is built on. From *Rouën* they paſſed to *Paris*, and having ſpent ſome time in viſiting that vaſt chaos of a city, they ſhaped their courſe for *Lyons*, where, after nine days unintermitted travel, they arrived, having by the way (beſides divers conſiderable places) paſſed by the town of *Moulins* (here famed enough for the fine tweezes it ſupplies us with) a part of the French *Arcadia*, the pleaſant *Pays de Foreſt*, where the marquis *d'Urfé* was pleaſed to lay the ſcene of the adventures and amours of that *Aſtrea*, with whom ſo many gallants are ſtill in love, ſo long after both his and her deceaſe: being alſo by the way uſefully diverted by the company of two Polonian princes, who had as well a right unto that title by their virtue and their education, as their birth.

AFTER ſome ſtay at *Lyons* (a town of great reſort, and no leſs trading, but fitter for the reſidence of merchants than of gentlemen) they traverſed thoſe lofty mountains, that formerly belonging to the duke of *Savoy*, were now by ſtipulation (in exchange of the marquiſate of *Saluzzo*) devolved to the French King; and having by the way beheld that famous place, where the ſwifteſt and one of the nobleſt rivers of *Europe*, the *Rhoſne*, is ſo ſtreightned betwixt two neighbour rocks, that it is no ſuch large ſtride to ſtand on both his banks, the third day after their departure from *Lyons*, they arrived ſafely at *Geneva*, a little commonwealth, which their early embracing and conſtant profeſſion of the reformed religion, together with that

peculiar care of providence, in ſo long and ſo unlikely a preſervation, has rendred very much the theme, not only of diſcourſe, but ſome degree of wonder.

Philaretus's inſtructions commanding him a long ſtay in this place, his governor (having both a wife and children in the town) provided him lodgings and entertainment in his own houſe, and at ſet hours taught him both rhetoric and logic, whoſe elements (not the expoſitions) *Philaretus* wrote out with his own hand; though afterwards he eſteemed both thoſe arts, as they are vulgarly handled, not only unſeaſonably taught, but obnoxious to thoſe inconveniences, and guilty of thoſe defects, he does fully particularize in his *Eſſays*. After theſe ſlighter ſtudies, he fell to learn the mathematics, and in a few months grew very well acquainted with the moſt uſeful part of arithmetic, geometry, with its ſubordinates, the doctrine of the ſphere, that of the globe, and fortification; in all which being inſtructed by a perſon, that had a greater regard for his ſcholar's proficiency, than the gains he might derive from the common tedious and dilatory way of teaching, he quickly grew ſo enamoured of thoſe delightful ſtudies, that they very often proved both his buſineſs and his diverſion in his travels, and he afterwards improved his opportunities to the attainment of a more than ordinary ſkill in divers of them. He alſo frequently converſed with a voluminous, but excellent French book, called, *Le Monde*, which ſo judiciouſly informs its readers, both of the paſt and preſent condition of all thoſe ſtates, that now poſſeſs our globe, and by a delectable and inſtructive variety not only ſatisfies men's curioſity, but ſo copiouſly ſupplies them with matter, both of curious and ſerious diſcourſe, that he uſed to ſay of that book,

that it was worth its title, which means, *The World.*

BUT to employ his body, as well as his mind, becauſe *Philaretus*'s age was yet unripe for ſo rude and violent an exerciſe as the great horſe, he ſpent ſome months in fencing, and ten or twelve in learning to dance, the former of which exerciſes he ever as much affected, as he contemned the latter. His recreations, during his ſtay at *Geneva*, were ſometimes mall, tennis, (a ſport he ever paſſionately loved) and, above all, the reading of romances, whoſe peruſal did not only extremely divert him, but (aſſiſted by a total diſcontinuance of the Engliſh tongue) in a ſhort time taught him a ſkill in French ſomewhat unuſual to ſtrangers. In effect, before he quitted France, he attained a readineſs in the language of that country, which enabled him, when he made concealment his deſign, to paſs for a native of it, both amongſt them that were ſo, and amongſt foreigners alſo; and in all his writings, whilſt he was abroad, he ſtill made uſe of the French tongue, not out of any intention to improve his knowledge in it, but becauſe it was that he could expreſs himſelf beſt in.

BUT during *Philaretus*'s reſidence at *Geneva*, there happened to him an accident, which he always uſed to mention as the conſiderableſt of his whole life. To frame a right apprehenſion of this, you muſt underſtand, that though his inclinations were ever virtuous, and his life free from ſcandal, and inoffenſive, yet had the piety he was maſter of already ſo diverted him from aſpiring unto more, that Chriſt, who long had lain aſleep in his conſcience (as he once did in the ſhip) muſt now, as then, be waked by a ſtorm. For at a time, which (being the very heat of ſummer) promiſed nothing leſs, about the dead of night, that adds moſt

moſt terror to ſuch accidents, *Philaretus* was ſuddenly waked in a fright with ſuch loud claps of thunder (which are oftentimes very terrible in thoſe hot climes and ſeaſons) that he thought the earth would owe an ague to the air, and every clap was both preceded and attended with flaſhes of lightning ſo frequent and ſo dazzling, that *Philaretus* began to imagine them the ſallies of that fire, that muſt conſume the world. The long continuance of that diſmal tempeſt, where the winds were ſo loud, as almoſt drowned the noiſe of the very thunder, and the ſhowers ſo hideous, as almoſt quenched the lightning, ere it could reach his eyes, confirmed *Philaretus* in his apprehenſions of the day of judgment's being at hand. Whereupon the conſideration of his unpreparedneſs to welcome it, and the hideouſneſs of being ſurpriſed by it in an unfit condition, made him reſolve and vow, that if his fears were that night diſappointed, all his further additions to his life ſhould be more religiouſly and watchfully employed. The morning came, and a ſerener cloudleſs ſky returned, when he ratified his determination ſo ſolemnly, that from that day he dated his converſion, renewing, now he was paſt danger, the vow he had made, whilſt he believed himſelf to be in it; that though his fear was (and he bluſhed it was ſo) the occaſion of his reſolution of amendment, yet at leaſt he might not owe his more deliberate conſecration of himſelf to piety to any leſs noble motive, than that of its own excellence.

THUS had this happy ſtorm an operation upon *Philaretus*, reſembling that it had upon the ground; for the thunder did but terrify, and blaſted not; but with it fell ſuch kind and genial ſhowers, as watered his parched and almoſt withered graces, and reviving their greenneſs, ſoon rendered them both

flouriſhing and fruitful. And though his boiling youth did often very earneſtly ſolicit to be employed in thoſe culpable delights, that are uſual in, and ſeem ſo proper for that ſeaſon, and have repentance adjourned till old age; yet did its importunities meet ever with denials, *Philaretus* ever eſteeming, that piety was to be embraced, not ſo much to gain heaven, as to ſerve God with. And I remember, that being once in company with a crew of mad young fellows, when one of them was ſaying to him, what a fine thing it were, if men could ſin ſecurely all their life time, by being ſure of leiſure to repent upon their death-beds; *Philaretus* preſently replied, that truly for his part he ſhould not like ſinning, though on thoſe terms, and would not all that while deprive himſelf of the ſatisfaction of ſerving God, to enjoy ſo many years fruition of the world. In effect it is ſtrange, that men ſhould take it for an inducement to an action, that they are confident, that they ſhall repent of it. But *Philaretus* himſelf having ſufficiently diſcourſed that point of early piety, in the ſixth treatiſe of his *Chriſtian Gentleman*, I ſhall at preſent not only add to the arguments you may find there alledged, that he uſed to ſay, that it was a kind of meanneſs in devotion, to conſider the very joys of the other life more as a condition, than a recompenſe. But (as when in ſummer we take up our graſs-horſes into the ſtable, and give them ſtore of oats, it is a ſign, that we mean to travel them) our *P.* ſoon after he had received this new ſtrength, found a new weight to ſupport; for ſpending ſome of the ſpring in a viſit to *Chambery*, the chief town of *Savoy*; *Aix* famed for its baths; *Grenoble*, the head town of *Dauphiné*, and reſidence of a parliament, his curioſity at laſt led him to thoſe wild mountains, where the firſt and chiefeſt of the Carthuſian

thuſian abbies does ſtand ſeated; where the devil taking advantage of that deep raving melancholy, ſo ſad a place, his humour, and the ſtrange ſtories and pictures he found there of *Bruno*, the father of that order, ſuggeſted ſuch ſtrange and hideous diſtracting doubts of ſome of the fundamentals of Chriſtianity, that, though his looks did little betray his thoughts, nothing but the forbiddenneſs of ſelf-diſpatch hindered his acting it. But after a tedious languiſhment of many months in this ~~tedious~~ perplexity, at laſt it pleaſed God, one day he had received the ſacrament, to reſtore unto him the withdrawn ſenſe of his favour. But though ſince then *Philaretus* ever looked upon theſe impious ſuggeſtions, rather as temptations to be ſuppreſſed, than doubts to be reſolved; yet never after did theſe fleeting clouds ceaſe now and then to darken the cleareſt ſerenity of his quiet, which made him often ſay, that injections of this nature were ſuch a diſeaſe to his faith, as the tooth-ach is to the body; for though it be not mortal, it is very troubleſom. And however, as all things work together to them that love God, *Philaretus* derived from this anxiety the advantage of groundedneſs in his religion: for the perplexity his doubts created obliged him, to remove them, to be ſeriouſly inquiſitive of the truth of the very fundamentals of Chriſtianity, and to hear what both Turks, and Jews, and the chief ſects of Chriſtians could alledge for their ſeveral opinions; that ſo, though he believed more than he could comprehend, he might not believe more than he could prove, and not owe the ſtedfaſtneſs of his faith to ſo poor a cauſe, as the ignorance of what might be objected againſt it. He ſaid (ſpeaking of thoſe perſons, that want not means to enquire, and abilities to judge,) that it was not a greater happineſs to inherit a good

religion,

religion, than it was a fault to have it only by inheritance, and think it the beſt, becauſe it is generally embraced, rather than embrace it, becauſe we know it to be the beſt. That though we cannot always give a reaſon for what we believe, we ſhould be ever able to give a reaſon why we believe it. That it is the greateſt of follies to neglect any diligence, that may prevent the being miſtaken, where it is the greateſt of miſeries to be deceived. That how dear ſoever things taken up on the ſcore are ſold, there is nothing worſe taken up upon truſt than religion, in which he deſerves not to meet with the true one, that cares not to examine whether or no it be ſo.

And now *Philaretus* having ſpent one and twenty months in *Geneva*, about the middle of September 1641 departed towards *Italy*, and having traverſed *Switzerland*, and by the way ſeen *Lauſanne* (an academy ſeated upon the great Genevan lake) *Zurich*, and *Soleurre*, the heads of Cantons wearing the ſame name, and wandered ſeven or eight days amongſt thoſe hideous mountains, where the *Rhoſne* takes it ſource, and he ſaw the *Rhine* but a brook; he at length arrived at the *Valtollina*, a ſpacious valley walled round with the ſteep *Alpes*, but ſo delicious, and (eſpecially in that ſeaſon) ſo crowned with all that *Ceres* and *Bacchus* are able to preſent, that it deſerved to be the motive, but not the ſtage of thoſe late wars it has occaſioned betwixt the rival crowns of *France* and *Spain*. There *Philaretus* had the curioſity to viſit, the place on which ſtood *Piur*, a pleaſant little town, once eſteemed for its deliciouſneſs, but now much more and more meritedly famous for its ruin, which happened ſome two dozen of years ſince, by the ſudden and unexpected fall of a neighbouring hill upon it, which ſtruck the whole town ſo deep into the ground,

that

that no after-ſearch by digging has ever prevailed to reach it. Having viſited the ſingularities of this earthly paradiſe, *Philaretus* and his company began to climb that mountain of the *Alpes*, which denominated from a town, that is ſeated upon its foot, is uſually called, *La montagna di Morbegno*. The hill was eight miles in aſcent, and double that number downwards. It was then free from ſnow; but all the neighbouring hills, where ſtore of cryſtal is digged, like perpetual penitents, do all the year wear white. Upon the top of this hill, which is entirely uninhabited, *Philaretus* had the pleaſure to ſee the clouds, which they paſſed through in their deſcent, beneath them darkning the middle of the mountain, while on the top they had a clear ſerenity. But notwithſtanding the fairneſs of the day, they ſpent it all in traverſing this hill, at the height of which they left the *Griſons* territory, and at the bottom entered a village belonging to that of the *Venetians*; but having paſſed through ſuch a purgatory as the *Alpes* to their Italian paradiſe, I cannot but ſuppoſe them ſomewhat weary, and ſo my pen obliged to let them and itſelf take ſome ſhort reſt.

Philaretus being thus entred into the vaſt and delicious plains of *Lombardy*, traverſed the greateſt part of that rich province, and having ſtayed the ſtomach of his curioſity with the obſervables of *Bergamo*, *Breſcia*, *Verona*, *Vincenza*, and *Padua* (a famous univerſity, but more peculiarly devoted to *Æſculapius* than *Minerva*'s arts) he gave it a full meal at *Venice*, where the great concourſe of foreign nations numerouſly reſorting thither for trade or nobler buſineſs, preſents the ſenſes with a no leſs pleaſing than conſtant variety. From *Venice* returning through *Padua*, and paſſing through *Bologna* and *Ferrara* (towns, whoſe names allow me to ſpare

ſpare their characters) he at laſt arrived at *Florence*, with a determination (having diſpoſed of the horſes he rode on from *Geneva* thither) to paſs the winter there. *Florence* is a city, to which nature has not grudged a pleaſing ſituation, and in which architecture has been no niggard either of coſt or ſkill, but has ſo induſtriouſly and ſumptuouſly improved the advantages liberally conferred by nature, that both the ſeat and buildings of the town abundantly juſtify the title the Italians have given it of *Fair*. Here *Philaretus* ſpent much of his time in learning of his governor (who ſpake it perfectly) the Italian tongue, in which he quickly attained a native accent, and knowledge enough to underſtand both books and men; but to ſpeak and expreſs himſelf readily in that language was a ſkill, he ever too little aſpired to acquire. The reſt of his ſpare hours he ſpent in reading the modern hiſtory in Italian, and the new paradoxes of the great ſtar-gazer *Galileo*, whoſe ingenious books, perhaps becauſe they could not be ſo otherwiſe, were confuted by a decree from *Rome*; his highneſs the Pope, it ſeems, preſuming, and that juſtly, that the infallibillity of his chair extended equally to determine points in philoſophy, as in religion, and loth to have the ſtability of that earth queſtioned, in which he had eſtabliſhed his kingdom. Whilſt *Philaretus* lived at *Florence*, this famous *Galileo* died [a] within a league of it, his memory being honoured with a celebrating epitaph, and a fair tomb erected for him at the publick charges; but before his death being long grown blind, to certain friers (a tribe, whom for their vices and impoſtures he long had hated) that reproached him with his

[a] He died January the 8th, 1641-2, N: S: See *General Dictionary*, Vol: V: p. 373. in the article of *Galileo*.

blindneſs,

blindneſs, as a juſt puniſhment of heaven incenſed for being ſo narrowly pried into by him, he anſwered, that he had the ſatisfaction of not being blind, till he had ſeen in heaven what never mortal eyes beheld before. But to return to *Philaretus*, the company of certain Jewiſh rabbins, who lodged under the ſame roof with him, gave him the opportunity of acquainting himſelf with divers of their arguments and tenents, and a riſe of further diſquiſitions in that point. When carnaval was come (the ſeaſon, when madneſs is ſo general in *Italy*, that lunacy does for that time loſe its name) he had the pleaſure to ſee the tilts maintained by the Great Duke's brothers, and to be preſent at the gentlemen's balls. Nor did he ſometimes ſcruple, in his governor's company, to viſit the famouſeſt *Bordellos*, whither reſorting out of bare curioſity, he retained there an unblemiſhed chaſtity, and ſtill returned thence as honeſt as he went thither, profeſſing, that he never found any ſuch ſermons againſt them, as they were againſt themſelves; the impudent nakedneſs of vice clothing it with a deformity, deſcription cannot reach, and the worſt of epithets cannot but flatter. But though *Philaretus* were no fuel for forbidden flames, he proved the object of unnatural ones; for being at that time in the flower of youth, and the cares of the world having not yet faded a complexion naturally freſh enough, as he was once unaccompanied diverting himſelf abroad, he was ſomewhat rudely preſſed by the prepoſterous courtſhip of two friers, whoſe luſt makes no diſtinction of ſexes, but that, which its preference of their own creates, and not without difficulty and danger forced a ſcape from thoſe gowned Sodomites, whoſe goatiſh heats ſerved not a little to arm *Philaretus* againſt ſuch people's ſpecious hypocriſy, and heightened and fortified

Sodomiſte Friers.

fortified in him an averſeneſs for opinions, which now the religieux diſcredit as well as the religion.

Philaretus having thus ſpent the winter in *Florence*, towards the end of March began his journey to *Rome*; and having paſſed thorough and ſeen the ſingularities of *Sienna*, *Monteſiaſcone*, and ſome other remarkable places in his paſſage, at the end of five days he ſafely arrived at that imperious theme of fame, which deſtinated to ſome kind or other of univerſal monarchy, is now no leſs conſiderable by its preſent ſuperſtition, than formerly by its victorious arms; the modern Popes bringing it as high a veneration as the ancient Cæſars, and the Barberine bees flying as far as did the Roman eagles. The more conveniently to ſee the numerous rarities of this univerſal city, *Philaretus*, to decline the diſtracting intruſions and importunities of Engliſh Jeſuits, paſſed for a Frenchman, which neither his habit nor language much contradicted. Under this notion he delightfully payed his viſits to what in *Rome* and the adjacent villages moſt deſerved them, and amongſt other curioſities and antiquities had the fortune to ſee the Pope at chapel, with the Cardinals, who ſeverally appearing mighty princes, in that aſſembly looked like a company of common friers. Here *Philaretus* could not chuſe but ſmile to ſee a young churchman, after the ſervice ended, upon his knees carefully with his feet ſweep into his handkerchief the duſt, his holineſs's gouty feet had by treading on it conſecrated, as if it had been ſome miraculous relick. Nor was *Philaretus* negligent to procure the Latin and Tuſcan poems of this Pope, whoſe name *Urbanus* his actions did not belie, he having more of the gentleman in him, than his pontifical habit would ſeem to let him wear. A poet he was, and a * * * * *

* * * He

* * * HE never found the Pope leſs valued than in *Rome*, nor his religion fiercelier diſputed againſt than in *Italy*; and ſometimes added, that he ceaſed to wonder, that the Pope ſhould forbid the ſight of *Rome* to proteſtants, ſince nothing could more confirm them in their religion.

Philaretus having in a ſhort time ſurveyed the principal rarities of this proud miſtreſs of the world, was unwillingly driven thence by his brother's diſability to ſupport the encreaſing heats, which there prove often inſupportable to ſtrangers, the neighbouring country being very ſcorched, and barren, and uninhabited. Wherefore he took his way back towards *Florence*, by that delicious valley that ennobles *Perugia*, and paſſing by *Piſtoia* came to *Florence*, where, after a ſhort repoſe, they deſcended the river *Arno* into *Piſa*, and from thence to *Livorno*, where in a felucca, with a good wind, they ventured, for expedition ſake, ſome fifteen or ſixteen miles into the ſea, and coaſting along the country, ſtill near the ſhore for fear of ſudden ſtorms, they each night lay in ſome town, drawing their boat aſhore (which was not uneaſy in regard of the inconſiderable tides of the Mediterranean there) and ſoon, though not without danger, reached proud *Genoa*. * * * * *

* * * * * THE next day *Philaretus* proſecuted his journey, and paſſing by *Monaco* (a very ſtrong place, then newly betrayed by the prince to the French) and by *Meatone*, a little principality belonging to the ſame prince, and ſtopping a while at *Nizza*, a place extremely and meritoriouſly famous for that ſtrength, which nature and art have emulouſly given it, by night they landed at *Antibe*, one of the towns of *France*, that moſt approaches *Italy*.

THE morning, that ſucceeded *Philaretus*'s arrival at *Antibe*, he left it to croſs the country to *Marſeilles*,

ſeilles, but he was welcomed into *France*, by an accident, which was very hazardous, and might have proved tragical. During the whole time of his being a traveller, or reſident in *Italy*, *Philaretus* had religiouſly adhered to his * * * *

* * * * English gentlemen thinking it as much better as ſafer to take off their hats, than to venture their heads, complimented with the crucifix; but *Philaretus*, without the leaſt act of ſuperſtition, though not without ill words, and worſe menaces, ventured and paſt boldly thorough them all, as ever reſolving, that the ſoul ſhould not more tranſcend the body in its own value, than in his eſteem. This danger thus happily eſcaped, *Philaretus* continues his way to *Marſeilles*, where the third day he arrived, with intent there to expect bills of exchange promiſed to be then ſent thither, to enable him to proſecute his future travels. His detention here was ſhortned by his viſits of ſo excellent a harbour for gallies and ſmall veſſels. * * * Town every night like it aſſured with lock and key. Here *Philaretus* had the pleaſure to ſee the French King's fleet of gallies put to ſea, and about two thouſand poor ſlaves tug at the oar to row them.

Here unfortunately Mr. *Boyle*'s manuſcript memoirs break off abruptly, which I ſhall endeavour to continue from ſuch lights, as his other papers afford me.

During his travels, he purſued his ſtudies with great vigour; and his brother *Francis*, afterwards lord *Shannon*, uſed to ſay, that even then he would never loſe any vacant time; for if they were upon the road, and walking down a hill, or in a rough way, he would read all the way; and when they came

came at night to their inn, he would ſtill be ſtudying till ſupper, and frequently propoſe ſuch difficulties, as he met with in his reading, to his governor [t].

IN *Italy* he read over the lives of the ancient philoſophers with the utmoſt attention. The ſect, which then ſtruck him moſt, was that of the Stoics; and he tried his proficiency in their philoſophy, by enduring a long fit of the tooth-ach with great unconcernedneſs [u]. At *Marſeilles*, he and his brother *Shannon* were obliged to wait for bills of exchange, in order to proſecute their journey; but, inſtead of that ſupply, they received from their father, in May 1642, a ſad relation of the general rebellion in *Ireland*, with this account, that it was with great difficulty he had procured for them two hundred and fifty pounds, to ſupply their expences in their return home. But this money being intruſted with one *Perkins*, a citizen of *London*, who was eſteemed a man of conſiderable ſubſtance, to be ſent them in bills of exchange, he proved unfaithful, ſo that they never received the leaſt part of it. Being thus left deſtitute in a ſtrange country, ſeven or eight hundred miles from home, they were by means of Mr. *Marcombes* their governor brought to *Geneva*, till ſupplies could be received to enable them to return; where, by reaſon of the dreadful confuſion of affairs in *Ireland* and *England*, they fruitleſsly waited for about two years; during all which time having no money, either to diſcharge Mr. *Marcombes*, or to return homewards, they were obliged to live at a great expence, and to run in debt to him on that account. "At length, adds

[t] Dr. *Dent*'s letter to Dr. *W. Wotton*, dated from *Weſtminſter Abbey*, May 20, 1699.

[u] Mr. *Boyle*'s memorandums of his own life, dictated by himſelf to biſhop *Burnet*.

" Mr. *Boyle* [x], though I could not receive any " ſupply at all from my friends, yet being unable " to ſubſiſt any longer, I was forced to remove " thence; and having upon his [Mr. *Marcombes*'s] " credit made ſhift to take up ſome ſlight jewels " at a reaſonable rate, we made ſale of them from " place to place, and by their help, at laſt, by " God's aſſiſtance, we got ſafe into *England* to- " wards the middle of the year 1644, where we " found things in ſuch confuſion, that although " the manor of *Stalbridge* were, by my father's de- " ceaſe, deſcended unto me, yet it was near four " months before I could get thither."

Upon his return to *England*, which was unexpected to all his relations, he went immediately to his beloved ſiſter *Catharine*, viſcounteſs *Ranelagh*, a lady remarkable for her uncommon genius and knowledge, in whoſe houſe he lodged four months and an half. It was by accident, that he found her out, but ſuch an accident, as he frequently afterwards, with great thankfulneſs to the providence of God, uſed to aſcribe a good part of his future happineſs to. For had he not been ſo detained, he had gone into the army, where though there were, beſides " the excellent King himſelf, " divers eminent divines, and many worthy per- " ſons of ſeveral ranks; yet the generality of thoſe " he would have been obliged to converſe with, " were very debauched, and apt, as well as inclina- " ble, to make others ſo [y];" whereas by ſtaying in *London* in a family, that was ſtrictly religious, his early years were ſeaſoned with ſuch principles of piety and virtue, as never forſook him during

[x] Letter to the ſteward of his manor of *Stalbridge* in *Dorſetſhire*.

[y] Papers of Mr. *B le*'s life, delivered by him to biſhop *Burnet*.

ing the reſt of his life. He reaped alſo a collateral advantage by it, which was, that a ſiſter-in-law of lady *Ranelagh*, who was with them in the houſe, and was wife of one of the principal members of the then houſe of commons, brought him into the acquaintance and friendſhip of ſome great men of that party, which was then growing, and ſoon after victorious; by whoſe means he got early protection for his Engliſh and Iriſh eſtates [2]. However it is probable from a letter of his to his brother lord *Broghill*, dated from *London*, Auguſt 25th, 1645, which begins thus, "The neceſſities "of my affairs calling me away (according to the "leave the parliament has given me) into *France*," that he went abroad again, poſſibly to ſettle his accounts with Mr. *Marcombes*, who, as is already obſerved, had advanced money, and engaged his credit for him. But he did not continue long out of *England*; for he was at *Cambridge* for a ſhort time in December following. In March 1645-6 he retired to his manor at *Stalbridge*; where he reſided for the moſt part till May 1650; and upon his arrival there wrote the following letter to his ſiſter, the lady *Ranelagh*, which will ſhew his talent in the epiſtolary ſtyle, even at that early age.

"SISTER,

"IF the buſy idleneſs of receiving ſenſeleſs vi-"ſits (whoſe continuance, if otherwiſe un-"avoidable, were capable, in my opinion, to juſti-"fy the retiredneſs of an hermit) had not ſo to-"tally taken up my leiſure, you ſhould not ſo "long have had a reprieve from the importunity "of my letters. But now at laſt, to make you "amends for my fault (if at leaſt the amends itſelf "be not a fault) I will preſent you with a piece

[2] Ibid.

" of a real romance in the ſtory of my peregrina-
" tion hither. The morning I had the unhappi-
" neſs to take my leave of you and my lady *Mol-*
" *kin*, I bid farewel to the city, and began my
" journey upon a courſer. Him I rid to dinner
" to *Egham*; and at the end of the town, there
" it was my good fortune (as we are pleaſed to
" miſcall it) to overtake an expreſs ſent from the
" parliament to the general, making ceremonies
" with his horſe, whether of them two ſhould lead
" the way. I quickly put an end to their difference,
" by making *Roger* take the honour upon him;
" and we had not rid far, before we met with ſome
" carriers, that had lately left *Andover*, who aſſured
" us, that the way was very ſecure; though pre-
" ſently after we came to diſcover, that thoſe
" youngſters would not have been very ſorry, that
" we had been ſnapped by ſome of their party,
" and been made to take *Oxford* in our way to
" *Stalbridge*; for we were no ſooner come to *Bag-*
" *ſhot*, but we met a carrier coming the way we
" were going, who aſſured us, that the cavaliers
" had eaſed them at *Baſingſtoke* of all their ſuper-
" fluous moveables, and were advanced as far as
" *Hartley-row*, the very village that I had deſigned
" for that night's lodging. So believing, that our
" quarters would be already taken up, we called a
" council of war to adviſe and reſolve what to do.
" It was *Roger*'s opinion, to ſtay where we were,
" till the paſſage were made ſecure (ſtrange, that
" ſo well-armed an head ſhould be fearful!) but
" the meſſenger eaſily perſuaded us to go to *Farn-*
" *ham* (though both that and all the country in
" the way were ſmartly alarmed) aſſuring *Roger*,
" that in caſe of danger he could ſtrike into a
" way, out of the way, to bring us to the place
" we went to. As we went along, we met di-

" vers little parties, with whom we exchanged fears,
" and found, that the malignant humours, that
" were then abroad, had frighted the country into
" a ſhaking ague, till we came to *Farnham*, which
" we found empty and unguarded, all the townſ-
" men being gone out to oppoſe the King's party,
" and chuſing rather to have their houſes empty,
" than repleniſhed with ſuch gueſts, as otherwiſe
" they were neceſſarily to expect. There invited
" by the coolneſs of the evening, and the freſhneſs
" of the garden I was walking in, I almoſt loſt
" myſelf in meditating, how fooliſhly raſh were
" our controlments of, and repinings at the wiſe
" contrivances of that all-ſwaying providence,
" whoſe proceedings ſhould be as far above our
" cenſures, as they are above our reach. How apt
" are we, upon the leaſt thwarting of our deſigns,
" to murmur againſt providence, and in a pettiſh
" humour throw the helve after the hatchet, *le*
" *manche apres la coignée*, and give ourſelves for
" gone, when, had we had our will in the means,
" we ſhould have been fruſtrate in our expectation
" of the end! Whereas that ſuperlative wiſdom,
" that we grumble at for thwarting us in the means,
" by croſſing us in the way, brings us the ſooner
" to our journey's end. With divers contempla-
" tions upon this ſubject, I went to ſupper, and
" thence to bed, not without ſome little fear of
" having our quarters beaten up by the cavaliers
" that night; when lo! to ſecond my apprehen-
" ſions, about the dead of my ſleep, and that
" night, I heard a thundering at the door, as if
" they meant to fright it out of the hinges, and
" us out of our wits. I preſently leaped out of
" my bed, in my ſtockings and clothes (my uſual
" night-poſture, when I travel;) and while *Roger*
" was lighting a candle, got my bilboa and other

" inſtruments from under my pillow: whereupon
" *Roger* opening the door, ſaw it beſet with muſke-
" teers, who no ſooner ſaw us, but ſaid aloud,
" that we were not the men they looked for; and
" being intreated to come into the chamber, re-
" fuſed it, and he, that brought them thither, ex-
" cuſed their troubling us, with as tranſcendent
" compliments as the brown bill could afford. I
" wondered at their courteſy, till I knew, that it
" was the town-conſtable, that, making a ſearch
" for ſome ſuſpicious perſons, and coming by my
" chamber, that wanted a lock, either had a mind
" to make us take notice of ſo conſiderable an
" officer, or no mind that we ſhould ſleep, whilſt
" our betters watched; and for his not coming in,
" ſome accents of fear, that fell from him, made
" me ſuſpect I was obliged for that to myſelf; and
" I remember, that juſt at the opening of the
" door, he peeping in, eſpied me drawing a piſtol
" out of one of my holſters, which, I believe,
" made him ſo niggardly of his company. Well,
" away went my gentleman in proſecution of his
" ſearch, and I e'en took my bows and arrows,
" and went to ſleep. The next day we dined at
" *Wincheſter*, and ever and anon, by the trembling
" paſſengers we met, were as nicely catechized con-
" cerning our ways, as if we were to be elected in
" the number of the new lay elders. From thence
" we reached *Saliſbury* that night, though before
" we came thither, we were fain to paſs in the dark
" through a wood, where we had warning given
" us, that about an hundred woodmen (we have
" got wild Engliſh too now) lay leiger, where theſe
" night-birds uſed to exerciſe their charity in eaſing
" weary travellers of ſuch burthenſom things as
" money and portmanteaus. There was nothing
" in all my journey vext me ſo much as the gravity

" of

" of my ſteed; for though he were none of the
" freeſt of his legs, yet he kept my body in a
" reſtleſs agitation, which was none of the plea-
" ſanteſt in the world neither; and if now and
" then I did ſolicit his ſides, to perſuade him to
" gallop (a dialect, that his feet were utterly un-
" acquainted with) it ſhould be ſhort itſelf, and
" both uſhered in and epilogized with ſo long and
" ſo jolting a trot, that the trouble of it was far
" greater than the eaſe. At *Saliſbury* I overtook
" my trunks I had ſent thither before; and the
" next morning took them along with me over
" the plain; where when we had gone about half
" the way, we were ſuddenly environed with a
" party of horſe (beyond whom we might diſcover
" a body of foot) who came poudering ſo furiouſly
" upon us, that they ſcarce gave us leiſure to draw;
" but coming nearer, and knowing the ſtate's
" meſſenger (as he called himſelf) they durſt not
" meddle, neither with us, nor with my trunks,
" which they eyed though very lovingly; and had
" not we been there, would, I believe, have open-
" ed to ſearch for malignant letters, ſuch as uſe to
" be about the King's picture in a yellow boy.
" The foot we ſaw were poor preſſed countrymen,
" whom this party of horſe were ſent, not to con-
" vey, but to guard. Amongſt them I ſaw one
" poor rogue, lacqueyed by his wife, and carrying
" a child upon his ſhoulders. A pretty device,
" methinks, to make thoſe, who have no goods,
" to fight for their wives and children! Good God!
" that reaſonable creatures, that call themſelves
" Chriſtians too, ſhould delight in ſuch an unna-
" tural thing as war, where cruelty at leaſt be-
" comes neceſſity, and unprocured poverty be-
" comes a crime; and a man with his whole fami-
" ly muſt be ſubject to be unavoidably undone,

" because the violence perhaps of thoſe very ſoldi-
" ers, that preſs him, had made him poor. At
" laſt on Saturday night I arrived, God be praiſed,
" at *Stalbridge*, and found by experience the truth
" of that ſenſeleſs proverb, the longeſt way about
" is the neareſt way home. And here the fair
" weather, that had been my conſtant companion
" from *London* hither, as ſoon as it ſaw me houſed,
" took leave of me; in whoſe abſence winter wea-
" ther has always ſo fully and uninterruptedly do-
" mineered, that we all ſuſpect the almanack-
" maker of a miſtake, in ſetting down March in-
" ſtead of January. It confines me to my cham-
" ber, and is ſo drooping, that it dulls me to all
" kinds of uſeful ſtudy, and (which is worſt of all)
" it renders me obnoxious to theſe country viſits
" (or viſitations rather) which, you know, uſe to
" ſupply with their length what they want in their
" goodneſs. As ſoon as the weather will give me
" leave, I intend to take *Marſton Bigot* in my way
" to *Briſtol*, to put ſome end or other to the bu-
" ſineſs —— I am loaded with civil language and
" fair promiſes; but I have always obſerved, that
" in the troopers dictionary the pages are ſo cloſe
" and thick written with promiſes, that there is
" no room left for ſuch a word as performance.

" My *Ethics*[a] go very ſlowly on; neither have
" I been poſſibly able to do any other buſineſs,
" ſave to make my brother's ſixty trees bear him
" ſome golden fruit, of which, (though I did my
" uttermoſt endeavour to ripen it) I muſt gather
" but one third at May-day next, the other at &c.

" My ſtay here, God willing, ſhall not be long,

[a] A treatiſe, which he was then compoſing on that ſubject, and ſtill extant in his own hand-writing. This was one of his firſt books, and was begun before he was twenty years of age.

" this

" this country being generally infected with three " epidemical diſeaſes (beſides that old leiger ſick- " neſs, the troop-flux) namely the plague, which " now begins to revive again at *Briſtol* and *Yeovil* " ſix miles off, fits of the committee, and con- " ſumption of the purſe; to which ſo violent ex- " pulſives, if ſo potent an attractive, as a letter " from you, were but added, it would both ex- " tremely ſweeten the ſtay, and accelerate the de- " parture of,

" My deareſt ſiſter,

" your moſt affectionate brother,

Stalbridge, March 30, 1646. " and humble ſervant,

" ROBERT BOYLE.

DURING his retirement at *Stalbridge*, he applied himſelf with great vigour to his ſtudies of various kinds, particularly thoſe of natural philoſophy and chemiſtry. Nor did he neglect to keep up a correſpondence with his friends by letters, ſome of which are extant of ſo early a date as the year 1646, wherein he not only gives an account of his ſtudies, but likewiſe diſcovers a great penetration, and a very ſolid judgment, concerning men and things, far above his age. And though he meddled as little as poſſible with politics, yet his intereſt, his good nature, and his piety, would not ſuffer him to be an unconcerned ſpectator of thoſe miſeries, under which his country groaned; and in ſome of his remarks on men's preſages concerning the conſequences of the war, and their expectation of a ſettled peace, he paſſed a true judgment, founded on wiſe and ſolid reaſons, and verified by the event. For however many of his friends flattered themſelves

ſelves with an happy iſſue of the war, he had all along different apprehenſions of it. I ſhall inſert therefore ſome extracts of the letters, according to theſe dates of them. The firſt was written to Mr. *Marcombes*, October 22, 1646, from *London*, where he then was.

"MONSIEUR,

"SINCE diſcontinuance of the practice of "your language has robbed me of that little "readineſs your converſe had taught me in it, I "ſhall take the liberty to make uſe of mine, "which I know you underſtand equally with your "own.

"IN my laſt I promiſed you a more full account "of ſundry particulars, I had then the leiſure but "to touch at; and for my diſengagement I ſhall "tell you, that we are in a very doubtful condi-"tion for the preſent, though in all probability "a few days will determine either our hopes or "our fears. In *England* the great and uninterrupt-"ed ſucceſſes have tranſcended as well their own "hopes, as their oppoſers fears. In *England* there "is not one malignant gariſon untaken, and in "*Wales* but two or three rocky places hold out "for the King, and theſe too ſo inconſiderable, "that they more advantage their enemies forces, "by keeping them from idleneſs, than they are "able to prejudice them by their oppoſition. The "Scots being now to quit the kingdom, the par-"liament had compounded with them for all their "arrears, upon whoſe payment they are to deliver "up their gariſons, and retire into their own coun-"try. The ſum total, being in all 300,000 l. is "already agreed upon; but the firſt payment is "yet in debate. His Majeſty is ſtill at *Newcaſtle*, "both diſcontenting and diſcontented; and the

"Scots

" Scots will now, upon their departure out of *Eng-*
" *land*, be forced ſome way or other to diſpoſe of
" his perſon, which the houſes have here voted to
" remain at the diſpoſition of both houſes of par-
" liament. The greater part of men in theſe
" parts are pleaſed to flatter themſelves with the
" hopes of a ſpeedy ſettlement of things; but for
" my part, that have always looked upon ſin as
" the chief incendiary of the war, and yet have by
" careful experience obſerved the war to multiply
" and heighten thoſe ſins, to which it owes its be-
" ing, as water and ice, which by a reciprocal ge-
" neration beget one another, I cannot without
" preſumption expect a recovery in that body,
" where the phyſic, that ſhould cure, but aug-
" ments, the diſeaſe. And this opinion of mine
" is over and above grounded upon ſuch politic
" conſiderations, (though known to very few be-
" ſides my ſelf) that in this I muſt even wiſh to
" have leſs reaſon on my ſide. Thoſe, that appear
" for the King in *Scotland*, are bodied in an army
" of above 8000 men; a power ſo formidable in
" that country, that certainly, if by the Scots ill
" uſage to his Majeſty it be provoked, it will be
" able, if not to conquer, at leaſt to ruin that beg-
" gared kingdom.

" As for *Ireland*, the news of my lord of *Or-*
" *monde*'s peace with the Iriſh, together with the
" articles, upon which it was concluded, have, I
" am confident, reached *Geneva* long ere this. But
" our lateſt intelligence out of thoſe parts informs
" us, that peace is very likely to produce its con-
" trary amongſt them that made it, not only by
" dividing betwixt the Iriſh and themſelves, for
" not only the Iriſh attempted, though vainly, to
" ſurpriſe my lord of *Ormonde*, and cut off his
" party, whilſt they were in their quarters; but

" the

" the beſt general, and moſt numerous army, to-
" gether with divers of their greateſt towns, have
" poſitively declared againſt the peace; to which
" the old Engliſh or catholic lords of the Engliſh
" pale, (ſo we call the counties about *Dublin*) with
" many others, have ſubmitted; ſo that theſe
" two flints are ſtriking ſuch ſparks, as are like to
" kindle a fine bonefire for the Engliſh, if they
" have the wit but to lay hold on the opportunity,
" and blow theſe private diſcontents into a civil
" war. Now this relation, however it ſeem not
" to carry with it any great probability, I am the
" more apt to believe, becauſe it is credited by
" the knowledge of the Iriſh intereſts; for the
" lords of the pale, though by manners and in-
" clination Iriſh, yet being Engliſh by deſcent,
" do with reaſon ſuſpect, that if they give way to
" a total expulſion or extirpation of the Engliſh,
" their turn will come next to drink out of the
" ſame cup; and therefore are very willing, by
" aſſenting to this peace, to ſecure themſelves
" from that fear, and from the manifeſt danger,
" that threatned them from their nearneſs to *Dub-*
" *lin*, in the proteſtants hands, and the moſt con-
" ſiderable place of the kingdom. On the other
" ſide, the mere natives promiſed themſelves for
" the general, by this rebellion, to exchange the
" throne of *England* for St. *Peter*'s chair; or at
" leaſt to ſhake off the *Engliſh* yoke for that of
" ſome foreign prince of their own religion; and
" in particular the nobility had already devoured
" in their greedy hopes all the proteſtants eſtates;
" upon whoſe preſumed acceſſion they built ſtrange
" and imaginary caſtles in the air. And the clergy,
" the main firebrand of this rebellion, expected
" no leſs than to be reinſtated into their ancient
" poſſeſſions; ſo that both theſe latter parties be-

" ing

" ing thus fruſtrated of their hopes, endeavour to
" foment among the people (very fit tinder to
" catch at ſuch a fire) a diſlike of the preſent
" peace, which the former oppoſe by their autho-
" rity, and the latter by thundering out excommu-
" nications againſt all thoſe, that do act; a courſe,
" that has a ſtrange influence upon that kind of
" people, whoſe ſuperſtition makes them believe
" a reality of force in thoſe ſcare-crow-thunder-
" bolts, that derive all their power only from the
" people's weakneſs, and are terrible for nothing,
" but becauſe they are pleaſed to fear them.

" THIS day with kingly ſtate was buried the October 22
" great earl of *Eſſex*, having 400 officers, not one & 1646.
" ſo low as a captain, the houſe of peers, the
" houſe of commons, the city, and the aſſembly
" of divines, for his mourners, and all the other
" parting compliments of honour, that ever ſubject
" could aſpire unto. His ſickneſs was an apo-
" plexy, which did not long make him linger;
" and thus he, that had eſcaped ſo many mutinies,
" at laſt periſhed by a mutiny of the humours.
" But I have uſually obſerved, that in theſe great
" funeral ſolemnities, the pageantry of ſorrow has
" eaten up the reality; and the care of the blaze
" diverted men from mourning. Beſides theſe
" coſtly flatteries of the dead (with neglect of the
" poor, whom that charge might keep alive) ſeem
" to endeavour to make them guilty of prodiga-
" lity in their very graves, whilſt it waſtes that
" upon a ſenſeleſs carcaſs, that is to it as uſeleſs,
" as it is needleſs; whereas it were much better
" for them to procure the prayers of the living,
" than their admiration.

" MY lord of *Inchiquin*'s abſence from *Munſter*,
" the greater part of this ſummer, by leaving my
" brother *Broghill* the ſole command of his army,

" gave

" gave him an opportunity to manifeſt to the " world his gallantry, which he did with an un- " wonted ſucceſs; and that no leſs conſtant than " it was great. But his own wants at home at " laſt reduced him to that ſtarving condition, that " when he prayed for his daily bread, his requeſt " reached at leaſt as far as his expectation. He is " now there ſoliciting for ſupplies for diſtreſſed " *Munſter*, which, though very liberally voted, " are ſo ſlow in their diſpatch, that many think " they have juſt cauſe to apprehend, that the phy- " ſic will not get thither, before the patient be " dead. His actions have hereby gained him a " general eſteem; and he has (if he were not my " brother, I durſt ſay deſervedly) acquired the " repute of none of the leaſt wits of the time. " He and I within theſe ten days intend, God " willing, for the Weſt, in order to his journey to " *Munſter*, whither he is now to carry over, un- " der his own command, a gallant brigade of " 4000 effective foot and 1500 horſe, for the par- " liament, in that province, till the enſuing ſpring " enable them to tranſport thither a more conſi- " derable power.

" THE preſbyterian government is at laſt ſettled " (though I ſcarce think it will prove long lived) " after the great oppoſition of many, and to their " no leſs diſlike; though it ſeemed very high " time unto others, that ſome eſtabliſhed and ſtrict " diſcipline ſhould put a reſtraint upon the ſpread- " ing impoſtures of the ſectaries, which have made " this diſtracted city their general rendezvous, " which entertains at this preſent no leſs than 200 " ſeveral opinions in point of religion, ſome dig- " ged out of thoſe graves, where the condemning " decrees of primitive councils had long ſince bu- " ried them; others newly faſhioned in the forge

" of

" of their own brains; but the moſt being new
" editions of old errors, vented with ſome honou-
" rable title and modern diſguiſements; ſo that
" certainly if the truth be any where to be found,
" it is here ſought ſo many ſeveral ways, that one
" or other muſt needs light upon it. But others,
" that juſtly pretend to a greater moderation, ſuſ-
" pect, that our dotage upon our own opinions
" makes us miſtake many for impoſtures, that are
" but glimpſes and manifeſtations of obſcure or
" formerly concealed truths, or at leaſt our own
" pride and ſelf-love make us aggravate very ve-
" nial errors into dangerous and damnable hereſies.
" The parliament is now upon an ordinance for
" the puniſhment of many of theſe ſuppoſed er-
" rors; but ſince their belief of their contrary
" truths is confeſſedly a work of divine revelation,
" why a man ſhould be hanged, becauſe it has not
" yet pleaſed God to give him his ſpirit, I confeſs,
" I am yet to underſtand. Certainly to think by
" a halter to let new light into the underſtanding,
" or by the tortures of the body to heal the errors
" of the mind, ſeems to me like the applying a
" plaiſter to the heel, to cure a wound in the head;
" which doth not work upon the ſeat of the diſ-
" eaſe.

" My brother *Broghill* continues very much
" your friend, and, I am confident, will be very
" ready upon occaſion to realize his profeſſions;
" and the like I dare boldly affirm of my ſiſter
" *Ranelagh*. An employment fit for you we can-
" not yet procure, becauſe all our nobility ſtands
" at a gaze, to ſee whether the iſſue of the trea-
" ties now in debate will be either peace or war;
" in either of which caſes it is probable, that a
" good many of them will make viſits to foreign
" climates.

" THE ſadneſs of your condition I very much " reſent, and would offer you my aſſiſtance to " ſweeten it, if I did not think the proffer ſuper- " fluous; but truly I believe it would leſs afflict " you, if you were a ſpectator of our miſeries " here, where every day preſents us with much " more unuſual diſpenſations of providence, where " I myſelf have been fain to borrow money of " ſervants, to lend it to men of above 10000 l. a " year.

" I WAS yeſterday in company with our *Iriſh* " St. *Auſtin*, the archbiſhop of *Armagh*; and having " told him, that you unfolded his myſtery of *the* " *Incarnation* in *French*, he ſeemed very willing, " that you ſhould publiſh it, upon the aſſurance I " gave him of the fidelity of its tranſlation. * * *

" AND now it is high time I ſhould give you " ſome account both of myſelf and of my condi- " tion; which truly hath been chequered with a " great deal of variety of fortune, and a great " many viciſſitudes of plenty and want, danger " and ſafety, ſickneſs and health, trouble and eaſe; " wherein I were guilty of an ingratitude great " as the favour I have received, if I did not ac- " knowledge a great deal of mercy in God's diſ- " penſation towards me; which truly hath been " ſo kind, as oftentimes to work my good out of " thoſe things I moſt feared the conſequences of, " and changed thoſe very dangers, which were " the object of my apprehenſion, into the motives " of my joy. I was once a priſoner here upon " ſome groundleſs ſuſpicions, but quickly got off " with advantage. The roguery of *Tom. Murray* " gave me a great deal of trouble to diſcover and " prevent; but I thence reaped the benefit of " making further diſcoveries into oeconomical " knowledge, than ever otherwiſe I ſhould have " done.

" done. I turned him away laſt year, to let him
" know, that I could do my buſineſs very well
" without him; but now, having attained to a
" knowledge of my own ſmall fortune beyond the
" poſſibility of being cheated, I am likely to make
" uſe of him again, to ſhew my father's ſervants,
" that I wiſh no hurt to the man, but to the
" knave.

" I HAVE been forced to obſerve a very great
" caution, and exact evenneſs in my carriage, ſince
" I ſaw you laſt, it being abſolutely neceſſary for
" the preſervation of a perſon, whom the unfor-
" tunate ſituation of his fortune made obnoxious
" to the injuries of both parties, and the protec-
" tion of neither. Beſides I have been forced to
" live at a very high rate, (conſidering the in-
" conſiderableneſs of my incomes) and, to fur-
" niſh out theſe expences, part with a good ſhare
" of my land, partly to live here like a gentle-
" man, and partly to perform all that I thought
" expedient in order to my Iriſh eſtate, out of
" which I never yet received the worth of a far-
" thing. * * *

" As for my ſtudies, I have had the opportunity
" to proſecute them but by fits and ſnatches, as
" my leiſure and my occaſions would give me
" leave. Divers little eſſays, both in verſe and
" proſe, I have taken the pains to ſcribble upon
" ſeveral ſubjects; ſome of the leaſt bad of
" which I ſhall venture to ſend you over, as ſoon
" as my next vacation ſpares me time to lick them
" into ſome leſs imperfect ſhape.

" THE *Ethics* hath been a ſtudy, wherein I
" have of late been very converſant, and deſirous
" to call them from the brain down into the
" breaſt, and from the ſchool to the houſe. I
" have endeavoured to make it not only a lan-

" thorn, but a guide, in a juſt, though a brief " treatiſe, that I am writing of it; having already " with much trouble in ſome ſixteen chapters tra- " velled through the moſt difficult part of it, " and that wherein I ſaw others deficient, I believe " I ſhall leave the reſt to be compleated by thoſe, " who enjoy more leiſure.

" THE other humane ſtudies I apply myſelf " to, are natural philoſophy, the mechanics, and " huſbandry, according to the principles of our " new philoſophical college, that values no know- " ledge, but as it hath a tendency to uſe. And " therefore I ſhall make it one of my ſuits to you, " that you would take the pains to enquire a lit- " tle more thoroughly into the ways of huſbandry, " &c. practiſed in your parts; and when you " intend for *England*, to bring along with you " what good receipts or choice books of any of " theſe ſubjects you can procure; which will make " you extremely welcome to our *Inviſible College*, " which I had now deſigned to give you a de- " ſcription of, but a gentleman, whom I have " been forced to keep talk with all the while I was " writing this, together with the fear of having " too much already treſpaſſed upon your patience, " call upon me to end your trouble and this letter " together."

HE was likewiſe at *London* in February 1646-7, whence he wrote the following letter, dated the 20th of that month, to Mr. *Francis Tallents*, then fellow of *Magdalen* college in *Cambridge*.

SIR,

" I SHOULD venture to apologize for my " ſilence, if I thought it not leſs guilty than " meritorious; ſince to reprieve you from the im- " portunity

" portunity of my letter, I have hitherto denied
" myſelf that happineſs, that your civility makes
" me confident I might have enjoyed by the re-
" ceiving of yours. I have been every day theſe
" two months upon viſiting my own ruined cot-
" tage in the country; but it is ſuch a labyrinth
" this *London*, that all my diligence could never
" yet find the way out on't, and hath but juſt
" now put me in a probability of leaving it within
" theſe two or three days. The beſt on't is, that
" the corner-ſtones of the *Inviſible*, or (as they
" term themſelves) the *Philoſophical College*, do now
" and then honour me with their company, which
" makes me as ſorry for thoſe preſſing occaſions,
" that urge my departure, as I am at other times
" angry with that ſolicitous idleneſs, that I am
" neceſſitated to during my ſtay; men of ſo ca-
" pacious and ſearching ſpirits, that ſchool-phi-
" loſophy is but the loweſt region of their know-
" ledge; and yet, though ambitious to lead the
" way to any generous deſign, of ſo humble and
" teachable a genius, as they diſdain not to be
" directed by the meaneſt, ſo he can but plead
" reaſon for his opinion; perſons, that endeavour
" to put narrow-mindedneſs out of countenance,
" by the practice of ſo extenſive a charity, that it
" reaches unto every thing called man, and nothing
" leſs than an univerſal good-will can content it.
" And indeed they are ſo apprehenſive of the
" want of good employment, that they take the
" whole body of mankind for their care.

" BUT leſt my ſeeming hyperbolical expreſſions
" ſhould more prejudice my reputation than it is
" able any ways to advantage theirs, and I be
" thought a liar for telling ſo much truth, I will
" conclude their praiſes with the recital of their
" chiefeſt fault, which is very incident to almoſt

" all good things; and that is, that there is not " enough of them.

" For news, I believe you do not ignore, what " a ſtream of ſucceſs the parliament, ſince I had " the honour to ſee you, has had. I will only " now take the freedom to tell you, that I am " greatly afraid, moſt men flatter themſelves in " their prognoſtications of peace, which are cal- " culated rather to the meridian of their deſires, " than to that of their reaſon. And though I " muſt confeſs, the traveller ſeems to be very " near the inn, yet I know not why the horſe " may not ſtumble at the threſhold; for I am " ſomewhat unapt to perſuade myſelf, that the " judgment will ceaſe, while the cauſe continues; " but am rather very ready to apprehend, that " while adverſity makes ſome obſtinate, and others " wanton, though the war perhaps may die, the " judgment will be kept alive. The pulpits were " never more adorned with excellent divines, than " they now are here, but with ſo unſuitable a " ſucceſs in many of the people, that I can ſome- " times think it no breach of charity to believe, " that the ſmall-pox has ſtricken inward, and " many of them have but baniſhed their vices " from the body into the heart. For my part, " the excellency of the miniſtry, ſince waited " on by ſuch an improficiency, increaſes my pre- " ſaging fears of the approaching miſery of the " people; for I ſhall eaſily be drawn to ſuſpect " that horſe to be very ſick, that thrives not in ſo " plentiful a paſture. And truly, methinks, it is " but a very ſad ſymptom, when the phyſic aug- " ments the diſeaſe. For matter of ſects, it ſeems, " that moſt of thoſe at *Amſterdam* have been re- " turned us over by bill of exchange, which our " Engliſh ſearchers have been ſo induſtrious to

" improve,

" improve, that there are few days paſs here, that " may not juſtly be accuſed of the brewing or " broaching of ſome new opinion. Nay, ſome " are ſo ſtudiouſly changling in that particular, " they eſteem an opinion as a diurnal, after a day " or two ſcarce worth the keeping. If any man " have loſt his religion, let him repair to *London*, " and I'll warrant him, he ſhall find it: I had al- " moſt ſaid too, and if any man has a religion, let " him but come hither now, and he ſhall go near " to loſe it. Pray God, it fare not with religion " amongſt thoſe novelties, as it does ſometimes " with a great commander, when he is taken pri- " ſoner by a company of common ſoldiers, who " every one tugging to have him for himſelf, at " laſt pull him to pieces, and ſo each get a limb, " but none enjoys him whole. For my part, I ſhall " always pray to God to give us *the unity of the* " *ſpirit in the bond of peace*, and deſire you to " believe, that, amongſt all the apoſtaſies of the " time, I ſhall be the leaſt capable of being ſeduc- " ed by that, that may oppoſe my being and con- " tinuing ſo,

Your moſt affectionate friend,
and faithful ſervant,
ROBERT BOYLE.

MR. *Tallents*, to whom this letter was written, had been, while he was an under-graduate, ſub-tutor to ſeveral ſons of the earl of *Suffolk* (one of whoſe daughters was married to lord *Broghill*,) being removed from *Peter* houſe to *Magdalen* college for that purpoſe; and about the year 1642 travelled abroad with them as their tutor. After his return, he became ſenior fellow and preſident or vice-maſter of his college; and having ſpent near twenty years in the univerſity, was ſettled of St.

Mary's in *Shrewſbury*, whence he was ejected for nonconformity in 1662. In the year 1670 he went a ſecond time as tutor to two young gentlemen, Mr. *Boſcawen* and Mr. *Hamden*. In the laſt part of his life he was paſtor to a congregation of proteſtant diſſenters at *Shrewſbury*, where he died April 11th, 1708, in the 89th year of his age. He was author of the Chronological Tables [b].

Mr. *Boyle* returned to *Stalbridge* ſoon after his writing the abovementioned letter to Mr. *Tallents*, as appears from one to his ſiſter, the lady *Ranelagh*, dated there Feb. 27, 1646-7, in which he writes as follows:

" * * * As to my *Dublin* buſineſs, I muſt expect from your ſpeedy information (I now beg of you) of their names, to whom the parliament has given power to oblige me there, directions both how to frame, and to whom to addreſs my requeſt. I muſt acknowledge to you, amongſt God's mercies of the firſt magnitude, both my lord of *Ormonde*'s unexpected coming in, and the parliament's leſs expected diſpatch; though both very conſonant to the wonted method of that gracious providence, that we find then oftentimes the neareſt for our reſcue, when that is furtheſt from our expectations. For my part, I am bold to believe, had we no other arguments to prove a providence, yet the ſtrange revolutions, of which in ſo ſhort a time our ruined country has been the unhappy ſcene, were more than ſufficient to demonſtrate that truth, to which alone I ſhall allow a greater infallibility, than to that other moſt certain one of my being,

Siſter, your moſt truly affectionate
brother and humbleſt ſervant,
Robert Boyle.

[b] See his character by Mr. *Matthew Henry* ſubjoined to his *Funeral Sermon*.

His

His next letter, dated from the ſame place, March 6, 1646-7, ſhews, that he was then entering upon his chemical ſtudies.

"* * * THAT great earthen furnace, ſays "he, whoſe conveying hither has taken up ſo "much of my care, and concerning which I made "bold very lately to trouble you, ſince I laſt did "ſo, has been brought to my hands crumbled into "as many pieces, as we into ſects; and all the "fine experiments, and caſtles in the air, I had "built upon its ſafe arrival, have felt the fate of "their foundation. Well, I ſee I am not deſigned "to the finding out the philoſophers ſtone, I have "been ſo unlucky in my firſt attempts in chemiſtry. "My limbecks, recipients, and other glaſſes have "eſcaped indeed the misfortune of their incen-"diary, but are now, through the miſcarriage of "that grand implement of *Vulcan*, as uſeleſs to "me, as good parts to ſalvation without the fire "of zeal. Seriouſly, madam, after all the pains "I have taken, and the precautions I have uſed, "to prevent this furnace the diſaſter of its pre-"deceſſors, to have it tranſported a thouſand miles "by land, that I may after all this receive it "broken, is a defeat, that nothing could recom-"pence, but that rare leſſon it teaches me, how "brittle that happineſs is, that we build upon "earth."

His acquaintance with Mr: *Samuel Hartlib* began very early. The father of that gentleman was a very conſiderable merchant in *Poland*, but obliged, on account of his attachment to the proteſtant religion, to retire to *Elbing* in *Pruſſia*. His two firſt wives were Poliſh ladies, of noble extraction, and his third, the mother of Mr: *Samuel Hartlib*, had

two ſiſters, both of whom were very honourably married, one to Mr. *Clarke*, the ſon of a lord mayor of *London*, afterwards to Sir *Richard Smith*, a privy counſellor, and at laſt to Sir *Edward Savage*; and the other to Mr. *Peake*, a younger brother of a good family [c]. Mr. *Hartlib*, Mr. *Boyle*'s friend, came to *England* about the year 1630, and ſoon diſtinguiſhed himſelf by his great zeal for the improvement of natural knowledge, and making it uſeful to human life. For which purpoſe, beſides what notices he could procure at home, he entertained a conſtant correſpondence with the virtuoſi in moſt other parts of *Europe*; and *Milton*, in his *Tractate of Education*, which he addreſſed to him, ſpeaks of him, as "a perſon ſent hither by ſome "good providence from a far country, to be the "occaſion and the incitement of great good to "this iſland." He obſerves likewiſe himſelf in his letter to Dr. *Worthington* abovecited, that "as "long as he had lived in *England*, he had ſpent "yearly out of his own betwixt three and four "hundred pounds ſterling. And when, ſays he, I "was brought to publick allowance, I have had "from the parliaments and councils of ſtate a pen-"ſion of three hundred pounds ſterling a year, "which as freely I have ſpent for their ſervice and "the good of many." But notwithſtanding the eminent advantages, which the public had reaped from his writings, and the aſſiſtances he had given to thoſe of other men, he was reduced, after the Reſtoration, to very neceſſitous circumſtances, as appears from the letters of Dr. *Worthington* to him, publiſhed at the end of that divine's *Miſcellanies*,

[c] Mr. *Samuel Hartlib*'s letter to Dr. *John Worthington*, Aug. 3, 1660, communicated by Mr. *John Ward*, profeſſor of rhetoric in *Greſham* college.

and

and from a petition [d] of Mr. *Hartlib* to the houſe of commons, that " he might find from their " goodneſs and bounty ſome relief in his diſtreſſed " condition, by being freed from his debts, and " put in a capacity to continue his ſervice to the " public, to advance in his generation the beſt ob- " jects for the uſe of mankind in all kinds."

The firſt letter I find of Mr. *Boyle* to him was dated from *Stalbridge*, March 19, 1646-7.

" Dear Mr. *Hartlib*,

" I NEED a great deal of rhetoric to expreſs " to you, how great a ſatisfaction I received " in the favour of your letter, both for the ſake " of the theme, and more for that of the author. " But my contentment was greatly qualified by " the miſcarriage of the general writing (which " ſhould be ſtiled the Univerſal Truchman, or " General Interpreter, if I were to be godfather) " you were pleaſed to ſend me; for the commen- " dations you give it are too great not to make " me very ſenſible of its loſs. If the deſign of *the* " *Real Character* [e] take effect, it will in good part " make amends to mankind for what their pride " loſt them at the tower of *Babel*. And truly, " ſince our arithmetical characters are underſtood " by all the nations of *Europe* the ſame way, " though every ſeveral people expreſs that com- " prehenſion with its own particular language, I " conceive no impoſſibility, that oppoſes the do- " ing that in words, that we ſee already done in " numbers. As for the pneumatical engine, that

[d] Communicated by Mr. *Ward*.

[e] This ſeems to relate to an excellent deſign, which was afterwards executed by Dr. *John Wilkins*, and publiſhed at *London*, 1668, in folio, under the title of *An Eſſay towards a Real Character, and a Philoſophical Language*.

" I uſe

" I uſe to call a wind-gun, which you mention in " your letter as preſented to the King, and for- " bidden by him to have any companions, ſure " the artiſt, that received the command, was more " ingenious than obedient; for I remember very " well to have ſeen one of them not exceeding in " bigneſs, nor differing much in ſhape from an " ordinary carabine, which being charged by the " ſole impreſſion of the air, would, by violence of " the contracted Boreas, ſend forth a leaden bul- " let, juſt the caliber, with force to kill a man at " twenty five or thirty paces diſtance from him. " This wind-gun I ſaw both charged and diſ- " charged; and now it comes into my mind, I " read, not long ſince, in a late mechanical treatiſe " of the excellent *Merſennus*, both the conſtruc- " tion and the uſe of this engine; and amongſt " the uſes one, whoſe ſtratagem obliged me to " take of it particular notice; and it was, how by " the help of this inſtrument to diſcover the weight " of the air; which, for all the prattling of our " book-philoſophers, we muſt believe to be both " heavy and ponderable, if we will not refuſe be- " lief to our ſenſes. Your *Imago Societatis*, and " your *Dextera Amoris*, I have great longings to " peruſe; and though with a deep ſenſe of my in- " ſufficiency, I ſhall very freely expreſs my obedi- " ence in delivering the opinion of

" Your humble ſervant,

" ROBERT BOYLE.

THE next letter extant to that gentleman is of the 8th of April, 1647.

" Dear Mr. *Hartlib*,

" I HOPE I ſhall need none other apologies " for my laſt week's ſilence, than my abſence

" hence,

" hence, when your letters arrived here. Your " *Imago Societatis* with a great deal of delight I " have peruſed, but muſt beg ſome leiſure to " acquaint you with my opinion of it, which now " were almoſt impoſſible for me to do, I having al- " ready preſented it to a perſon of quality, with " whom if it take ſuitably to my wiſhes, it may " thence have no obſcure influence upon the pub- " lic good, concerning which I have lately traced " a little dialogue in my thoughts, which my un- " ceaſing domeſtic diſtractions will by no means as " yet permit me to blot paper with. The epiſtle " prefixed to the *Imago* is both pithy and to the " purpoſe. And truly I am extremely glad to ſee " a perſon of Mr. *Hall*'s years employ, in attempts " of this nature, that youth, which the moſt of " thoſe, that are as little indebted to time as he, " think too good for their Maker, though they " think it not too good to be ſquandered away. " *Campanella*'s *Civitas Solis* [f], and that ſame *Reſpub-* " *lica Chriſtianopolitana*, which he mentions, will " both of them deſerve to be taught in our lan- " guage. Of the *Utopia* he is modelling, though I " cannot judge, before it ſees the light, yet my " expectations will be none of the ſmalleſt, if I " proportion them to the ingenuity of the author. " And for the Divine Emblems, that he makes " us hope for, I muſt reſerve my ſenſe of them for " their peruſal, ſince the opinions I embrace, both " about the nature and the teaching of virtue, will " doubtleſs appear as paradoxical to others, as " they ſeem probable to me. For thoſe deſigns of " Mr. *Hall*'s Tutor, which you have ſo appropriat-

[f] This piece contains the idea of a commonwealth, after the manner of Sir *Thomas More*'s *Utopia*, and is printed with *Campanella*'s *Realis Philoſophiæ Epilogiſticæ partes quatuor*, at *Francfort*, 1623, in 4to.

" ingly chriſtened, I believe the requeſts of the " excommunicated petition now on foot in the " army will ſcarce receive a ſlower ſatisfaction; for " the particulars, in which he requires it, do not " only aſk a profound knowledge and ſolid judg- " ment, (qualities of themſelves not very epidemi- " cal) but likewiſe a leiſured and a great multi- " plicity of reading, and ſo an intimacy as well " with authors as with things; qualities, that in " this ſtirring and neceſſitous age (where men are " forced to court don *Plutus* and my lady *Fortune* " with more aſſiduity than the Muſes) make very " unfrequent matches in the ſelf-ſame perſon: be- " ſides that the diſſenting opinions of the *Ptole-* " *means*, the *Tychonians*, the *Copernicans*, (to which " I was once very much inclined,) and the other " noveliſts, are both ſo irreconcilable among them- " ſelves, and leave a man ſo little latitude of neu- " trality, that it will be perhaps but one remove " from impoſſible, preciſely to declare, what has " been hitherto both perfectly demonſtrated and " confeſſedly on all ſides; the one taking that (as I " have known by experience, when I ſtudied that " problem of the earth's peregrination) for an un- " deniable demonſtration, which the other will ei- " ther abſolutely reject as a paralogiſm, or at leaſt " call in queſtion, as no more than a bare proba- " bility.

" YOUR *Common Writing* (for which you have " my humble thanks) is at laſt come ſafe to my " hands; but my occaſions have not yet allowed " the leiſure to fix my thoughts upon it: only if " the dictionary (whoſe edition, had my wiſhes " the power to ſwiften it, ſhould be very ſudden) " do not over-ſwell and diſeaſe it of a tympany, " methinks the bulk of the grammar is very rea- " ſonable in reference to what the title promiſes,

" which

" which I was well pleaſed to ſee ſo, apprehending " (nor are my fears yet entirely ſuppreſſed) leſt that " this way of ſaving the labour of learning a " language ſhould prove like a new device, I have " lately ſeen, to perform all the operations of " arithmetic by the help of an inſtrument, where " I found it much more difficult to learn the uſes " of the inſtrument, than the rules of the art.

" THAT in my laſt I took no notice of Mr. " *Dury*'s excellent diſcourſe of teaching logic, was " not at all my neglect, but the treacherouſneſs of " my memory; for which meaning to apologiſe " to the author himſelf, I ſhall for this time add " no more to your trouble, but an humble requeſt " to aſſure him, that I am his, and yourſelf, that " I am

" Your moſt really affectionate friend,

" and humble ſervant,

" ROBERT BOYLE.

THE letter, which he wrote on the 3d of May 1647, to Mr. *John Dury*, famous for his attempts to reconcile the Lutherans and Calviniſts, will ſhew Mr. *Boyle*'s moderation, at that time, with reſpect to differences in religious opinions.

" IT has been long, ſays he, as well my wonder, " as my grief, to ſee ſuch comparatively petty " differences in judgment make ſuch wide breaches " and vaſt diviſions in affection. It is ſtrange, that " men ſhould rather be quarrelling for a few tri- " fling opinions, wherein they diſſent, than to em- " brace one another for thoſe many fundamental " truths, wherein they agree. For my own part, " in ſome two or three and forty months, that I

" ſpent in the very town of *Geneva*, as I never
" found that people diſcontented with their own
" church-government, (the gallingneſs of whoſe
" yoke is the grand ſcare-crow, that frights us
" here;) ſo could I never obſerve in it any ſuch
" tranſcendent excellency, as could oblige me ei-
" ther to bolt heaven againſt, or open *Newgate*
" for all thoſe, that believe they may be ſaved
" under another. Wherefore I muſt confeſs, it
" would be extremely my ſatisfaction, if I could
" ſee, by God's bleſſing, your pious endeavours of
" twiſting our froward parties into a moderate and
" ſatisfactory reconcilement, as ſucceſsful, as I am
" confident they will be prudent and unwearied.
" As for our upſtart ſectaries (muſhrooms of the
" laſt night's ſpringing up) the worſt part of
" them, if not exaſperated by, inſtead of lighting
" them into the right way with the candle, fling-
" ing the candleſtick at their heads, like *Jonah*'s
" gourd, ſmitten at the root with the worm of
" their irrationality, will be as ſudden in their
" decay, as they were haſty in their growth; and
" indeed perhaps the ſafeſt way to deſtroy them
" is rather to let them die, than attempt to kill
" them."

Chapter: 4: 7. m

On the 8th of the ſame month he wrote the following letter to Mr. *Hartlib*.

" Dear Mr. *Hartlib*,

" IT was very needleſs in your laſt to make
" apologies for the glad parliamentary news
" you began your letter with; for beſides that its
" goodneſs authoriſes its nature, and were able to
" prefer ſo pleaſing a diſobedience to the moſt
" exact compliance with my deſires; beſides this,
" I ſay, you intereſt yourſelf ſo much in the *In-*

" *viſible*

" *viſible College*, and that whole ſociety is ſo highly
" concerned in all the accidents of your life, that
" you can ſend me no intelligence of your own
" affairs, that does not (at leaſt relationally) aſſume
" the nature of *Utopian*. And truly, Sir, for my
" particular, had you been to coin and ſhape news,
" not ſo much to inform, as to delight me, you
" could ſcarce have made choice of any, that were
" more welcome, either to my wiſhes for their own
" particular ſatisfaction, or for thoſe, that I dedicate
" to the good of the public, which can acknow-
" ledge your merits with no advantage, that has
" not a direct tendency to its own, and which,
" by the higheſt expreſſions of gratitude for your
" ſervice to it, does but enable your zeal to mul-
" tiply and continue them. The phraſes of the
" ordinances (which theſe alone of yours have
" brought me into charity with again) were indeed
" extremely civil in reſpect of thoſe, that framed
" them; and yet but barely juſt in regard of
" him, for whom they were deſigned. Certainly
" the taking notice of, and countenancing men of
" rare induſtry and publick ſpirit, is a piece of po-
" licy as vaſtly advantageous to all ſtates, as it is
" ruinouſly neglected by the moſt. And therefore
" we may evidently obſerve thoſe commonwealths
" (as the *Hollanders* and the *Venetian*) to be the
" moſt happy and the moſt flouriſhing, where in-
" genuity is courted with the greateſt encourage-
" ments. Mr. *Hall*'s unmerited elogium of me I
" muſt in juſtice aſcribe rather to his civility, than
" to his opinion; to the former of which I am
" alſo redevable for a very handſom complimental
" letter, he was lately pleaſed to honour me with,
" to which I ſhall requeſt a ſpeedy conveyance of
" the incloſed (though unſuitable) anſwer, and a
" belief, that I liſt it not amongſt the leaſt of
" your

" your favours, to procure me the acquaintance of " a perſon, that treading antipodes to the ſtrain of " his contemporaries, has September in his judg- " ment, whilſt we can ſcarce find April upon his " chin.

" My ſenſe of his propoſitions concerning the " College I muſt neceſſarily ſuſpend, till a more " exquiſite information of the particulars of his " whole deſign. Only by the by I ſhall take the " freedom to tell you, that though I eſteem Mr. " *Hall* very moderate in the point of pecuniary " duties, you can ſcarce be too tender in taſking " young collegiates as to the duties of the brain, " ſince they being all of them to be perſons of " quality and voluntiers, will hardly ſupport with " alacrity any thing, that ſavours of conſtraint; " beſides that the gallantry and nobleneſs of their " own principles will carry them on unimpoſedly " to do much more, than your ſtricteſt conſtitu- " tions can reaſonably enjoin them. The expe- " dients you propoſe to Mr. *Hall*'s tutor are not " at all unlikely to take; and the applications you " counſel him to make to thoſe three famous " mathematicians, can promiſe a great deal of " probability for their ſucceſs: eſpecially *Gaſſendus*, " a great favourite of mine, I take to be a very " profound mathematician, as well as an excellent " aſtronomer, and one, that has collected a very " ample treaſury of numerous and accurate obſer- " vations of all, that belongs to the abſtruſe ſci- " ence of thoſe ſublimer bodies. I find you very " happy, or rather very judicious, in the nominat- " ing of the perſons, Mr. *Hall*'s Tutor is by you " addreſſed to; and am confident, as well as you, " that thoſe elevated ſpirits will not prove half " ſo coſtive and ſo pedantical, as the great ſcho- " larians of our colleges, whom yet I am apt

" enough

" enough to pardon, in conſideration of the uſe-
" fulneſs (for the moſt part) of the knowledge
" they conceal, which perhaps being admired but
" as long as kept in a myſtery, an imparting diſ-
" covery would depreciate.

" THE riſe you have now to reſume your for-
" mer correſpondencies with the great *Merſennus*,
" I hope you will greedily embrace, he being a
" man truly incomparable in his own way, and
" the mechanics he tranſcends in as greatly bene-
" ficial as little underſtood. The Engliſhing of,
" and additions to *Oughtred*'s *Clavis Mathematica*
" does much content me, I having formerly ſpent
" much ſtudy on the original of that algebra,
" which I have long ſince eſteemed a much more
" inſtructive way of logic, than that of *Ariſtotle*.
" No body has yet been charitable enough to ſend
" me either the long deſired *Office of Addreſs*, or
" Mr. *Dury*'s wiſhed for diſcourſe concerning Ac-
" commodation, though my longings for their
" ſight have been very ſuitable to the content-
" ments I expect from their peruſal. I have writ-
" ten a long letter to Mr. *Dury*, by the ſame poſt,
" that is to deliver you this; and it ſhall not be
" the neglect of my improving my rhetoric to the
" uttermoſt, that ſhall impede my prevailing with
" him, by exemplifying his rules, to clothe with
" fleſh and ſkin his excellent ſceleton of the Art
" of Reaſoning.

" FOR your bedfellow's receipt for the ſtone
" (which certainly wants a parallel, if it be not
" more eaſy than effectual) I beſeech you to re-
" turn her (together with the preſent of my hum-
" ble ſervice) moſt humble thanks, which I mean
" very ſhortly, God willing, to pay you in an
" epiſtle I have drawn up to perſuade men to
" communicate all thoſe ſucceſsful receipts, that

" relate either to the preſervation or recovery of " our health; to which (if you will pardon me " a clinch) I ſhall add, as to the diſeaſe laſt named " (ſo cruel in its tortures, and ſo fatal in its ca- " taſtrophe) that they muſt have their hearts more " hard than a very ſtone, that can refuſe a ſanative " remedy for the ſtone.

" As for me, during my confinement to this " melancholy ſolitude, I often divert myſelf at " leiſure moments in trying ſuch experiments, as " the unfurniſhedneſs of the place, and the pre- " ſent diſtractedneſs of my mind, will permit me; " which when once my vacant intervals of time " will give me leave to blot paper with, and make " ſome ſhort diſcourſes and reflections upon, you " may (with all the ſervices you ſhall be pleaſed " to command their author) confidently expect " from,

" Sir, your moſt affectionate friend
and humble ſervant,
" ROBERT BOYLE.

THE *Inviſible College*, which Mr. *Boyle* ſpeaks of in this letter, as well as in thoſe to Mr. *Marcombes* and Mr. *Tallents*, probably refers to that aſſembly of learned and curious gentlemen, who, after the breaking out of the civil wars, in order to divert themſelves from thoſe melancholy ſcenes, applied themſelves to experimental inquiries, and the ſtudy of nature, which was then called the new philoſophy, and at length gave birth to the Royal Society. This aſſembly Dr. *Wallis*, who was one of its members, gives the following account of[z].

[z] See his letter to Dr. *Thomas Smith*, dated January 29, 1696-7, publiſhed in Mr. *Thomas Hearne*'s Appendix to his preface to *Peter Langtoft*'s chronicle, Vol. I. p. 161. edit. *London*, 1725.

" About

" About the year 1645, (ſays he) while I lived in
" *London*, I had the opportunity to be acquainted
" with divers worthy perſons, inquiſitive into na-
" tural philoſophy and other parts of human learn-
" ing, and particularly of what hath been called
" the new or experimental philoſophy. We did
" by agreement, divers of us, meet weekly on a
" certain day, to treat and diſcourſe of ſuch affairs.
" Of which number were Dr. *John Wilkins*, af-
" terwards biſhop of *Cheſter*, Dr. *Jonathan Goddard*,
" Dr. *George Ent*, Dr. *Gliſſon*, Dr. *Merret*, doctors
" in phyſic; Mr. *Samuel Foſter*, then profeſſor of
" aſtronomy at *Greſham* college, Mr. *Theodore Haak*,
" a German of the Palatinate, and then reſident in
" *London*, who, I think, gave the firſt occaſion,
" and firſt ſuggeſted thoſe meetings, and many
" others. Theſe meetings we held ſometimes at
" Dr. *Goddard*'s lodging in *Wood-ſtreet* (or ſome
" convenient place near) on occaſion of his keep-
" ing an operator in his houſe, for grinding glaſſes
" for teleſcopes and microſcopes; and ſometimes
" at a convenient place in *Cheapſide*; ſometimes
" at *Greſham* college, or ſome place near adjoining.
" Our buſineſs was (precluding matters of theology
" and ſtate-affairs) to diſcourſe and conſider of
" philoſophical inquiries, and ſuch as related there-
" unto, as phyſic, anatomy, geometry, aſtronomy,
" navigation, ſtatics, magnetics, chemics, mecha-
" nics, and natural experiments, with the ſtate of
" theſe ſtudies, as then cultivated at home and
" abroad. About the year 1648, 1649, ſome of
" us being removed to *Oxford*, firſt Dr. *Wilkins*,
" then I, and ſoon after Dr. *Goddard*, our company
" divided. Thoſe in *London* continued to meet
" there, as before, and we with them, when we
" had occaſion to be there. And thoſe of us at
" *Oxford*, with Dr. *Ward*, ſince biſhop of *Saliſbury*,

Ward's Lives of Profeſſor's of Greſham College. 240. ſea: 185.86.87.88.

" Dr: *Ralph Bathurſt*, now preſident of *Trinity* " college in *Oxford*, Dr: *Petty*, ſince Sir *William* " *Petty*, Dr: *Willis*, then an eminent phyſician in " *Oxford*, and divers others, continued ſuch meet- " ings in *Oxford*, and brought thoſe ſtudies into " faſhion there, meeting firſt at Dr: *Petty*'s lodgings " in an apothecary's houſe, becauſe of the conve- " nience of inſpecting drugs, and the like, as there " was occaſion; and after his remove to *Ireland* " (though not ſo conſtantly) at the lodgings of " Dr: *Wilkins*, then warden of *Wadham* college; " and after his removal to *Trinity* college in *Cam-* " *bridge*, at the lodgings of the honourable Mr. " *Robert Boyle*, then reſident for divers years in " *Oxford*. Theſe meetings in *London* continued, " and after the King's return, in 1660, were in- " creaſed with the acceſſion of divers worthy and " honourable perſons, and were afterwards incor- " porated by the name of the *Royal Society*, and " ſo continue to this day."

But to return to Mr: *Boyle*, his early zeal for religion and virtue, and his friendly faithfulneſs in reproving and counſelling ſuch as tranſgreſſed the laws of both, are evident from two letters ſent to a noble lord, one or both written, when he was but little turned of twenty years of age, I ſhall ſub- join one of them.

" Dear Count,

" WHEN I ſhould have anſwered yours by " the laſt poſt, ſome phyſic I had taken " the night before ranging very briſkly through " all my veins had ſo ſtirred up and exaſperated " my ill humours, that I durſt not handle a pen. " But now I am calmed enough to let you know, " that I leſs applaud your conſtancy than your gal-

" lantry,

" lantry, that makes you ſo unſeaſonably turn
" Preſbyterian, by devoting yourſelf to the *Kirk*.
" I hope you will never juſtify the proverb of, *the*
" *nearer the Church, the farther from God*; but this
" ſame epithet of *incomparable*, with the apper-
" taining ſtory, if it be not rather your compli-
" ment, than your opinion, reliſhes of more paſ-
" ſion, than is allowed you for any woman but one.
" If I durſt ſo much injure your judgment, as to
" diſtruſt your conſtancy, I ſhould tell you, that
" marriage is not a bare preſent, but a legal ex-
" change of hearts; and the ſame contract, that
" gives you right to another's, ties you to look
" upon your own as another's goods, and too
" ſurely made over, to remain any longer in your
" gift. I ſhould tell you farther, that no change
" could be leſs excuſable than yours, not only
" becauſe you are bleſſed with a lady, whoſe
" beauty and merit make injuries to your faith
" and happineſs inſeparable, but becauſe too you
" cannot father upon your obedience any till tempta-
" tion to a ranging flame; for you aſſumed the
" entire liberty of chuſing to yourſelf whom you
" muſt now ſolely blame, if you matched not to
" your ſatisfaction, when you matched ſo purely
" for it, that had you as much motive to fickle-
" neſs, as you have to the contrary virtue, you
" ought to expect as little pity, as, God be praiſed,
" you need; and could betray no diſlike of your
" election, that would not either criminate your
" honour, or diſparage your judgment. * * *

" BUT I hope, dear count, by this time you
" will think me as mad for writing all this to
" you ſeriouſly, as I ſhould think you, if my ſuſ-
" picions were juſt; for I hope your innocence
" will turn all this into a compliment to Mrs.
" *Kirke*, by diſtruſting her eyes of the power of

" kindling a flame, which ſuch obſtacles oppoſe,
" and ſo great inconveniences would attend.

" THE diſaſter of your addreſſes to the council
" of ſtate I am extremely troubled at, both for
" your ſake and my own; ſince not only that diſ-
" appointment defeats me of good company, but,
" I much fear, miſleads you into ill. And truly,
" my lord, I am enough your ſervant to tell you
" freely, that a young man, that ventures himſelf
" in ill company, tempts as many temptations,
" and expoſes himſelf to as many inconveniences,
" as to reckon up would require a homily, and to
" inſiſt on a volume, rather than a letter. The
" ſeveral goods of body, mind, fame, and for-
" tune, are blaſted by ill company. For firſt (to
" begin with the laſt) it engages us to that riot
" and expenſiveneſs, which, beſides that it is ever
" ruinous, is now ſignally unſeaſonable, being not
" only extremely unſuitable to the ſad condition
" of our times, but peculiarly obſtructive to thoſe,
" who make applications to the ſtate for relief or
" compenſation of loſſes; ſince the ſame expences,
" that beget want, paſs for arguments of plenty,
" in the opinion of thoſe, whoſe belief of our
" want is as great a requiſite to the removal of
" it, as the juſtneſs of that belief were a misfor-
" tune. How much the body ſuffers by thoſe de-
" bauches, that are epidemical to looſe company,
" though the inſtances be numerous and obvi-
" ous, few youths will believe, till their experience
" hath ſadly convinced them; not to mention,
" that thoſe diſtempers, that are both the effects
" and puniſhments of exceſs, are as uneaſy upon
" the ſcore of ſhame, as that of pain; and health
" impaired by diſſoluteneſs has commonly the fate
" of needing pity, and wanting it. As for the
" mind, ill company is an infected air for it;

" which

" which, though it be preciſely no diſeaſe, diſpoſes
" to the moſt mortal ones. Bad examples are the
" general pimps of every vice; and I dare boldly
" affirm, that fewer people go to hell for pride,
" or oaths, or incontinency, than for company;
" which I therefore deſire to draw in blacker co-
" lours to you, becauſe I have ever obſerved it
" worſt for the beſt natures, ſince they being pli-
" able and eaſy do many things, that offend their
" conſciences, merely to pleaſe the company,
" which a man muſt be like to be liked, and
" which not to imitate is interpreted to reprove.
" And when once compliance has betrayed one
" to a vice, cuſtom detains us there, it happening
" to men in ſins, as in taking of tobacco, which,
" though at firſt ſucked in with reluctance, barely
" to pleaſe the company, men afterwards find a
" guſto in, and are unable to leave off. And
" therefore I prefer few laws before that of a na-
" tion we are pleaſed to call barbarous, amongſt
" whom it was allowed to ſue a man for keeping
" evil company, as well as for riot, adultery, or
" any other crime it leads to; which will appear
" leſs ſtrange and more equitable to them, that
" conſider, that amongſt us a bawd is as legally pu-
" niſhable as a whore or wenching. And laſtly, a
" good name can by nothing be ſtrained deeplier
" than by ill company. Few people have either
" the charity or opportunity to know men inti-
" mately; and there is no way either more pro-
" bable, or more frequented, to judge of thoſe
" we know not, than by their company, ſince
" men are not unreaſonably ſuppoſed to delight
" in thoſe qualities they delight in others for.
" For beſides that the choice of ill company does
" not only make men thought to have been vici-
" ous, but to be made ſo, as longing for unhealthy

" and extravagant traſh does not only argue, that " a maid has the green-ſickneſs, but ſerves to in- " creaſe the diſeaſe; young men conſider not " enough, how deep a root the firſt impreſſions " they give of themſelves take, and conſider not, " how difficult it is to bring men to think well, " when to do ſo they muſt acknowledge to them- " ſelves, that they have thought amiſs; eſpecially " ſince moſt human acknowledgments being of " ſo changeable-coloured a complexion, that like " pigeons necks they give various repreſentations, " as they are variouſly looked on. A diſfavouring " prepoſſeſſion brings even our good actions under " the diſadvantage of ſuſpicion, and procures our " indifferent ones the harſheſt conſtruction; where " the intention is doubtful, men generally collect- " ing it from their opinion of the perſon, and be- " ing diſpoſed to believe rather, that he is faulty, " than they miſtaken."

It was about the ſame time, that he wrote his *Free Diſcourſe againſt cuſtomary Swearing*; the manuſcript of which in his own hand-writing is ſtill extant; and by the neatneſs and exactneſs of it appears not to have been the firſt draught, though it is dated *Anno MDCXLVII.* The firſt leaf has this title, *The Swearer ſilenced by* R. B. but in the firſt page it is called, *A Free Diſcourſe againſt cuſtomary Swearing.* It is dedicated to his ſiſter, the counteſs of *Kildare.* There is annexed to it, *A Diſſuaſive from curſing, from Mr.* W. D. *to Sir* G. L. Theſe two pieces were publiſhed at *London*, 1695, in 8vo, by Dr. *John Williams*, afterwards biſhop of *Chicheſter*, who obſerves in his preface, that the *Diſcourſe* was the third treatiſe, which Mr. *Boyle*, though then but twenty years of age, had prepared for the public; his *Seraphic Love*, afterwards printed,

ed, and his *Eſſay on miſtaken Modeſty*, being referred to in this piece.

BUT the courſe of his ſtudies was interrupted for ſome time in the ſummer of the year 1647, by a ſevere fit of the ſtone, to which diſtemper he was extremely ſubject. However in September following he went to *Briſtol* and *Saliſbury*; and in February 1647-8, made a voyage to *Holland*, partly to viſit the country, and partly to accompany his brother *Francis* in conducting his wife from the *Hague* [h]. But he did not ſtay long there, for on the 15th of April, 1648, he was at *London*; and on the 13th of May at *Stalbridge*, whence he wrote to his ſiſter *Ranelagh*, giving her an account, that he ſhould poſſibly ſoon ſend her his thoughts upon the ſubject of *Toleration*, in an eſſay of his, intitled, *Of Divinity* [i]. He returned to *London* the ſame month, where he was likewiſe in July; and in a letter to the counteſs of *Monmouth* at *Moor-Park*, dated the 7th of that month, mentions a piece of his writing, then in the hands of that lady [k]. He was in Auguſt following at *Leez* in *Eſſex*, the ſeat of his ſiſter the counteſs of *Warwick*, where on the 6th of that month he finiſhed his treatiſe, intitled, *Some Motives and Incentives to the Love of God, pathetically diſcourſed of in a Letter to a Friend:* of which I ſhall give ſome further account below, when I have occaſion to mention the publication of it. But he was returned to *Stalbridge* on the 9th of September following; and on the 26th of March 1649, was at *Marſton* in *Somerſetſhire*, the ſeat of his brother, the lord *Broghill*;

[h] Mr. *Boyle*'s letter to Mr. *Marcombes*, dated from *London*, Febr. 22, 1647-8, in which he mentions his intentions of ſetting out for *Holland* the next day.

[i] See his Works, Vol. V. p. 235.

[k] Ibid. p. 237.

and

and on the 2d of Auguſt at *Bath*; in a letter from whence to his ſiſter *Ranelagh* of that date [l], he takes notice of his having been troubled for three or four weeks with a quotidian ague, "though in "the intervals of the fit (ſays he) I both began "and made ſome progreſs in the promiſed diſ-"courſe of *Public Spiritedneſs*. But now truly "weakneſs, and the doctor's preſcriptions, have "caſt my pen into the fire, though in ſpite of "their menaces I ſometimes preſume to ſnatch it "out a while, and blot ſome paper with it. My "preſent employment is reviewing ſome *Conſo-"latory Thoughts on the Loſs of Friends*, which my "poor lady *Suſan*'s death obliged me to entertain "my ſelf with, and which I am now recruiting." But on the 31ſt of that month he was returned to *Stalbridge*, as appears from a letter of his of that date to the ſame lady [m], wherein he writes thus: "I will not now preſume to entertain you with "thoſe moral ſpeculations, with which my che-"mical practices have entertained me; but if this "laſt ſickneſs had not diverted me, I had be-"fore this preſented you with a diſcourſe (which "my vanity made me hope would not have diſ-"pleaſed you) *of the theological Uſe of natural Phi-"loſophy*, endeavouring to make the contemplation "of the creatures contributory to the inſtruction "of the prince, and to the glory of the author of "them. But my blood has ſo thickned my ink, "that I cannot yet make it run; and my thoughts "of improving the creatures have been very much "diſplaced by thoſe of leaving them. Nor has "my diſeaſe been more guilty of my oblivion, "than my employment, ſince it has begun to re-"leaſe me; for *Vulcan* has ſo tranſported and be-

[l] Ibid. p. 237, 238.

[m] Ibid. p. 238.

"witched

" witched me, that as the delights, I taſte in it, " make me fancy my laboratory a kind of Ely- " ſium, ſo, as if the threſhold of it poſſeſſed the " quality the poets aſcribed to that *Lethe*, their " fictions made men taſte of, before their entrance " into thoſe ſeats of bliſs, I there forget my " ſtandiſh and my books, and almoſt all things, " but the unchangeable reſolution I have made, " of continuing till death your &c."

HE was at *London* on the 15th of November 1649; on the 20th of the ſame month at *Marſton*; on the 21ſt of December, and in the month of January following, again at *London*; and on the 1ſt of May 1650, at *Stalbridge*, whence he wrote the following letter to Mr. *Hartlib*.

" SIR,

" I HAVE here ſo little time to diſpatch a " great deal of indiſpenſable buſineſs in, that " my knowledge of your goodneſs, and yours of " my hurry, promiſes me your pardon for the ne- " ceſſitated fault of returning to ſo long and ſo " excellent a letter ſo ſhort and ſo haſty an anſwer, " which ought to be wholly employed in acknow- " ledgments and thanks for the exact intelligence " you are pleaſed to oblige me with from *Utopia* " and *Breda*; my inclination as much concerning " me *in Republicâ Literariâ*, as my fortune can do " *in Republicâ Anglicanâ*. Nor am I here altoge- " ther idle, though my thoughts only are not at " preſent uſeleſs to the advancement of learning; " for I can ſometimes make a ſhift to ſnatch " from the importunity of my affairs leiſure to " trace ſuch plans, and frame ſuch models, as, if " my Iriſh fortune will afford me quarries and " woods to draw competent materials from, to

" conſtruct after them, will fit me to build a pret-
" ty houſe in *Athens*, where I may live to philoſo-
" phy, and Mr. *Hartlib*,

Stalbridge, May-day, 1650. " A cordial friend,

" and not wholly uſeleſs ſervant,

" R. B.

" In great haſte, which I beſeech you pardon.

To this I ſhall add here another letter to the ſame gentleman, the date of which is wanting.

" Dear Mr. *Hartlib*,

" I AM ſure, that you have too much charity
" to want juſtice; and therefore on the ſcore of
" your ſerious promiſe I am bold, not only to de-
" ſire, but to expect at your hands a *Mercurius*
" *Philoſophicus*, in an account of the projects and
" ſucceſſes of that *college*, whereof God has made
" you hitherto the midwife and nurſe. I ſhall
" not beg any information from you of that *diur-*
" *nal* news, of which a whole ſheet may be had
" for a peny, and yet be over-bought. No, I
" will ſtint my requeſts to your *Utopian* intel-
" ligence, as the only way to keep me in cha-
" rity with men, by letting me ſee, that the de-
" generate world yet harbours ſome, that do not
" undeſerve the name. As for me, knowing,
" that my letters will be guilty of faults enough in
" rhetoric, without loading themſelves with any
" needleſs crimes in morality, I here openly diſ-
" claim all compliments, and ſolemnly engage my
" ſelf (as to me) to give them a perfect baniſhment
" from our converſe, wherein I am confident I
" ſhall have but a very eaſy office to ſurmount;
" ſince

" ſince for my part I ever eſteemed them at beſt
" but the froth (not to ſay the ſcum) of civility;
" and for yours, I know the gallantry of your
" principles leads you to the nobleſt way of put-
" ting them out of countenance, by carrying you
" to doing men really more good than they dare
" promiſe. And ſince you do not diſdain the
" meaneſt workman, that is but willing to lay
" ſome few ſtones towards the building of your
" *college*, I ſhall in my following epiſtles (if this
" procure them a paſs) take the liberty to acquaint
" you with what thoughts and obſervations of
" mine I ſhall judge uſeful in reference to ſo glo-
" rious a deſign; to which I ſhall think it very
" much my happineſs, if any endeavours of mine
" can have the honour in the leaſt meaſure to
" contribute, not only as they owe a duty to the
" public (though, I muſt confeſs, that of itſelf a
" very prevalent motive) but becauſe I know you
" ſo vaſtly affectionate to that public, that my in-
" vention will furniſh me with no fitter way, than
" that of my ſervices to it, to give you real and
" accepted teſtimonies of my being, &c."

HE had now gained ſo eminent diſtinction in the republic of learning, that in 1651 Dr. *Nathaniel Highmore*, a phyſician, who had been a member of *Trinity* college in *Oxford*, addreſſed to him his Treatiſe, printed at *London* that year, under the title of *The Hiſtory of Generation; examining the ſeveral opinions of divers authors, eſpecially that of Sir* Kenelm Digby *in his* Diſcourſe of Bodies. *With a general relation of the manner of Generation as well in plants as animals; with ſome figures delineating the firſt originals of ſome creatures, evidently demonſtrating the reſt. To which is joined a Diſcourſe of the Cure of Wounds by Sympathy, or without any real*

real application of medicines to the part affected, but eſpecially by that powder, known chiefly by the name of Sir Gilbert Talbot's *powder.* The dedication is dated from *Sherborne* May 15, 1651, with this inſcription, *To the honourable Mr.* Robert Boyle, *ſon to the right honourable the earl of* Corke, *my much honoured friend*; and begins thus:

"Noble Sir,

"WHERE virtue ſhall be found in conjunction with nobility in ſuch black, "the laſt and worſt times, it no leſs invites and "amazes the eyes of hearers and beholders, than "ſome new ſtar or blazing comet; but with this "difference, the one is cauſe of their fear, the "other gives life to their hopes and joy. You "have, Sir, ſo enriched your tender years with "ſuch choice principles of the beſt ſort, and even "to admiration managed them to the greateſt advantage, that you ſtand both a pattern and wonder to our nobility and gentry, who in theſe "paſt times, many of them, have ſo ſpent their "precious minutes, that they are ſcarce able to account for one, or ſpend an hour but in vice; "that cannot brook virtue, becauſe it it not born "with them; that hate all things, that muſt be "obtained by induſtry; who moſt degenerately "intruſting their wits as well as fortunes with "their inferiors, have made them maſters of "both; a ſad forerunner (I will not ſay author) of "theſe ſadder times. But you have made a better and far nobler choice; you have not thought "your blood and deſcent debaſed, becauſe married to the arts. You ſtick not to trace nature "in her moſt intricate paths; to torture her to a "confeſſion, though with your own ſweat and "treaſure obtained."

IT was about the year 1652, that Mr. *Boyle* began an *Eſſay on the Scripture*, ſtill extant in manuſcript, from which his *Conſiderations on the Style of the Scriptures* were chiefly taken. This is evident from a letter of his, dated June 19, 1652, to his brother the lord *Broghill*, at whoſe requeſt he compoſed that *Eſſay*; which letter, with a few alterations, was afterwards made the Epiſtle Dedicatory to the *Conſiderations on the Style*, &c. Under what diſadvantages the *Eſſay* was written, the reader is informed in the preface to the *Conſiderations*: "The "Eſſay, *ſays he*, having not been all written in one "country, but partly in *England*, partly in another "kingdom, and partly too on ſhip-board, it were "ſtrange, if in what I writ, there did not appear "much of unevenneſs, and if it did not betray "the unleiſuredneſs, and reliſh of the unſettled-"neſs of the wandering author, who by thus ram-"bling was reduced, for want of a library, to "comply with the requeſt of his friend, who was "more deſirous to receive from the author apples "and pears growing in his own orchard, than "oranges and lemons fetched from foreign parts." A diſcourſe written in this manner, without any foreign aſſiſtance, and under ſo many diſadvantages in the exerciſe of his own talents, ſhews his abilities in a much more conſpicuous light, than if he had compiled ſome finiſhed piece with the uſual helps, and at a time of leiſure and freedom from diſtractions. The publick will undoubtedly be glad to ſee his thoughts concerning the laſt Engliſh tranſlation of the Bible, and of the advantage of underſtanding the original languages of the ſcriptures, with ſome account of his own application to the ſtudy of them, extracted from ſome looſe ſheets, intended as a part of his *Eſſay on the Scripture*.

"THOUGH

" THOUGH I think, ſays he, the author of our " laſt tranſlation have made it much more correct " than our former was, and preferable to moſt I " have met with in other languages; and have " therefore been ſincerely and induſtriouſly inſtru- " mental to the Britiſh churches edification, ac- " cording to their light; yet that it were very " poſſible, as well as to be wiſhed, that an Eng- " liſh tranſlation, yet in many places more correct, " might be framed, will ſcarce ſeem improbable " to an intelligent perſon, that duly conſiders, " how much the knowledge of tongues, and (what " would be highly uſeful, not to ſay neceſſary, in " ſuch a work) of Jewiſh and other Eaſtern learn- " ing, is, ſince our laſt verſion was made, encreaſed " and refined, and conſequently, how many texts " by that greater light, that now ſhines among " critics and antiquaries, may be rendered more " fully, or more warily, or more clearly, or more " coherently to the context, or more congruouſly " to the analogy of faith, or that of reaſon.

" I CANNOT but reckon the want of (not ſuper- " ficial rudiments, but) ſolid knowledge and prac- " tical readineſs in the originals of the Bible a- " mongſt the chief impediments of our diſcovery " of the נפלאות *niphlaoth*, or unobvious rarities of " that divine book, from which he much dero- " gates, that ſtints them to thoſe diſcernible in a " tranſlation. But I pretend not, by what I have " now ſaid, or reſerve to ſay elſewhere, either to " impoſe a neceſſity of learning Greek and He- " brew on thoſe, whoſe incapacities or employ- " ments deny them the requiſites or conveniences " of ſuch a ſtudy; or to diſcourage thoſe, that " cannot underſtand the Scriptures in its originals, " for reading it in tranſlations; for (at leaſt among " his own children) he, that requires leſs, where

" leſs

" leſs hath been intruſted, will not exact a mea-
" ſure of knowledge diſproportionate to the means
" he hath vouchſafed of it; and tranſlations of the
" Bible may be very effectual to God's purpoſes
" in it, though not ſo much ſo as their originals
" to all, eſpecially as to the practical maxims of
" religion. Experience makes it probable, that
" tranſlations hold them forth clearly and una-
" nimouſly enough to make their faithful practi-
" cers acceptable unto God through Jeſus Chriſt,
" as the Egyptians were wondrouſly enriched by
" the river *Nilus*'s ſtreams flowing from an un-
" known fountain. To which purpoſe I remem-
" ber, that that excellent Chriſtian ſcholar and
" divine Dr. *Uſher*, archbiſhop and primate of *Ar-*
" *magh*, (whoſe encouragements I gratefully ac-
" knowledge to have much engaged me to the
" ſtudy of the holy tongues) talking to me one
" day in his ſtudy of his intended edition of the
" Septuagint, earneſtly implored of him by the
" tranſmarine critics, obſerved to me, not with-
" out ſome juſt wonder, that for divers ages the
" church (as to the greater part of it,) and even
" the apoſtles, and even thoſe, that moſt flou-
" riſhed in piety, ſcarce uſed any other ſcripture
" than the Septuagint's tranſlation, which is one of
" the faultieſt verſions of the Bible, and wants
" not groſs miſtakes. And indeed, ſo there be a
" devout, induſtrious, and modeſt ſearch after the
" truths of ſcripture proportionable to the abilities
" and opportunities, that God vouchſafes, and a
" conſcionable conforming of our lives to our diſ-
" coveries, it is much to be hoped, that we may
" miſs a great many theological truths without
" miſſing ſalvation. But as I ſhall not exact the
" ſtudy of the original from thoſe, whoſe want of
" parts or leiſure diſpenſeth them from it; ſo

" cannot I but diſcommend thoſe, who wanting
" neither abilities, time, nor conveniences to range
" thorough I know not how many other ſtudies,
" can yet decline this; and who ſparing no toil
" nor watches to put it out of the power of the
" moſt celebrated philoſophers to deceive them in
" another doctrine, leave themſelves obnoxious to
" the ignorance, fraud, or partiality of an inter-
" preter in that of ſalvation; and thereby ſeem
" more ſhy of taking any opinions upon truſt,
" than thoſe, in whoſe truth or falſeneſs no leſs
" than God's glory, and peradventure their own
" eternal condition, is concerned. Methinks thoſe,
" that learn other languages, ſhould not grudge
" thoſe, that God hath honoured with ſpeaking
" to us, and employed to bleſs us with that hea-
" venly doctrine, that comes from him, and leads
" to him. When I have come into the Jewiſh
" ſchools, and ſeen thoſe children, that were ne-
" ver bred up for more than tradeſmen bred up to
" ſpeak (what hath been peculiarly called) God's
" tongue, as ſoon as their mother's, I have bluſh-
" ed to think, how many gown-men, that boaſt
" themſelves to be the true *Iſraelites*, are perfect
" ſtrangers to the language of *Canaan*; which I
" would learn, were it but to be able to pay God
" the reſpect uſual from civil inferiors to princes,
" with whom they are wont to converſe in their
" own languages. For my part, I * * * that have
" a memory ſo unhappy and ſo unfit to [ſupply]
" my intellectual deficiencies, and the reſt of my
" diſabilities, that it often ſtrongly tempts me to
" give over my ſtudies, and abandon an employ-
" ment, wherein my ſlow acquiſts are (by the
" treacherouſneſs of my memory) ſo eaſily loſt;
" beſides this diſadvantage, I ſay, thoſe excellent
" ſciences, the mathematics, having been the firſt

" I addicted

" I addicted myſelf to, and was fond of, and ex-
" perimental philoſophy with its key, chemiſtry,
" ſucceeding them in my eſteem and applications;
" my propenſity and value for real learning gave
" me ſo much averſion and contempt for the
" empty ſtudy of words, that not only I have vi-
" ſited divers countries, whoſe languages I could
" never vouchſafe to ſtudy, but I could never yet
" be induced to learn the native tongue of the
" kingdom I was born and for ſome years bred
" in. But in ſpite of the greatneſs of theſe in-
" diſpoſitions to the ſtudy of tongues, my vene-
" ration for the ſcripture made one of the greateſt
" deſpiſers of verbal learning leave *Ariſtotle* and
" *Paracelſus* to turn grammarian, and where he
" could not have the help of any living teacher,
" engaged him to learn as much Greek and He-
" brew, as ſufficed to read the old and new teſta-
" ment, merely that he may do ſo in the Hebrew
" and Greek, and thereby free himſelf from the
" neceſſity of relying on a tranſlation. And after
" I had almoſt learned by rote an Hebrew gram-
" mar, to improve myſelf in ſcripture-criticiſms,
" in the Jewiſh way of reading the oracles com-
" mitted to them, I, not over-cheaply, purchaſed
" divers private conferences with one of their
" ſkilfulleſt doctors (as St. *Hierom* had thoſe noc-
" turnal meetings, which ſo much helped to make
" him the ſolideſt expoſitor of all the fathers, with
" *Barraban* or *** the Jew) I received of him
" few leſſons, that coſt me not twenty miles rid-
" ing, at a time, when I was in phyſic, and my
" health very unſettled. A Chaldee grammar I
" likewiſe took the pains of learning, to be able
" to underſtand that part of *Daniel*, and thoſe few
" other portions of ſcripture, that were written
" in that tongue; and I have added a Syriac

" grammar purely to be able one day to read the " divine diſcourſes of our Saviour in his own lan- " guage; in which I can truly profeſs, with the fa- " mous publiſher of the Syriac teſtament, *Guido* " *Fabricius*, (in his dedication of that book, and " his verſion of it, to the then *French* King) that " I had no inſtructor to teach me ſo much as to " know the letters, but have been, to uſe the " words he borrows of the learned *Budæus*, αὐ- " τοδίδακτος καὶ θεοδίδακτος, have had no other liv- " ing teacher but God and myſelf in the little " grammatical learning I have acquired in thoſe " four tongues, in which the better underſtand- " ing and reliſhing of the ſcripture limit my pre- " tenſions. Nor do I at all repent my labour, " though, to ſecure my progreſs and acquiſts in " theſe languages, my bad memory ſtill reduces " me to a conſtant and frequent recollection of " ſome choice inſtitutions of them all. For cer- " tainly the ſatisfaction of underſtanding God, and " thoſe excellent perſons celebrated even in his " book, expreſs themſelves in their own very " terms and proper languages, doth richly recom- " pence the pains of learning them; for, accord- " ing to the known ſaying,

" *Quamvis allatâ gratus ſit ſaper in undâ,*
" *Dulcius ex ipſo fonte bibuntur aquæ.*

" Though we ſtream-waters not unpleaſant think,
" Yet with more guſto of the ſpring we drink.

" It is true, that a ſolid knowledge of that " myſterious language, God and his prophets ſpake " (whatever is given out to the contrary by ſu- " perficialiſts, amongſt whom I remember a Jewiſh " profeſſor of my acquaintance uſed to reckon " many, that are thought and think themſelves

" Hebricians,

" Hebricians, becauſe they could without heſita-
" tion and the help of a tranſlation or a dictionary
" read and render in their own tongue an He-
" brew chapter) is, I ſay, ſomewhat difficult, but
" not ſo difficult, but that ſo ſlow a proficient as
" I could in leſs than a year, of which not the leaſt
" part was uſurped by frequent ſickneſſes and
" journies, by furnaces, and by (which is none of
" the modeſteſt thieves of time) the converſa-
" tion of young ladies, make a not inconſidera-
" ble progreſs towards the underſtanding of both
" teſtaments in both their originals. * * *

" FOR my part, that reflect often on *David*'s
" generoſity, who would not offer as a ſacrifice to
" the Lord his God that, which coſt him nothing,
" I eſteem no labour laviſhed, that illuſtrates or
" endears to me that divine book; my addicted-
" neſs to which I gratulate to myſelf, as thinking
" it no treacherous ſign, that God loves a man,
" that he inclines his heart to love the ſcriptures,
" where the truths are ſo precious and important
" that the purchaſe muſt at leaſt deſerve the price.
" And I confeſs myſelf to be none of thoſe lazy
" perſons, that ſeem to expect to obtain from God
" the knowledge of the wonders of his book upon
" as eaſy terms, as *Adam* did a wife, by ſleeping
" profoundly, and having her preſented to him
" at his awaking."

IN the ſame year 1652 he went to *Ireland*, whence he wrote the following letter in January 1652-3 to *his highly honoured friend John Mallet, Eſq; at Poyn-ington, near Sherburne in Dorſetſhire.*

" SIR,

" IT is ſo long ſince, that I have been made
" happy in an unanſwered letter of yours, that

" it would now almoſt as juſtly produce my bluſh-
" es, that it hath lain ſo long unacknowledged,
" as it did then my ſatisfaction to find it ſo oblig-
" ing; if it had not ſo abruptly come to my
" hands, and with ſo many other papers, that till
" I was this afternoon informed by Mr. *Lillyes*,
" that he ſent it me, I neither knew by whom
" you had written it me, nor by whom I might
" ſecurely return you for it my highly merited
" thanks. But though this ignorance leſſened, it
" deſtroyed not the happineſs I received in a pa-
" per, whoſe writer kept it from needing endear-
" ing circumſtances. And certainly without a huge
" deal of inſenſibility, I could not but be highly
" ſenſible of a civility, that came to ſeek me out
" in a country, which thoſe, that have the moſt
" relation to it, ſeldom think on any longer than
" they are in it. Nor was I only mightily affect-
" ed to find the welcome continuation of your
" friendſhip for me, but very much delighted to
" find too, that you began to have a friendſhip for
" the Eaſtern tongues. For though to a perſon
" ſo uſed to the ſtudy, and repleniſhed with the
" knowledge of things, as Mr. *Mallet*, the learn-
" ing of words cannot but at firſt be very tedi-
" ous; yet ſince to be a good grammarian is ne-
" ceſſary to be a good divine; and he, that hath
" no ſkill in the original ſcripture himſelf, may
" be deluded by thoſe, that tranſlate it for him;
" you will find a rich compenſation for the trouble
" of learning the holy tongue in the advantages
" of having learned it; and by the help of that
" primitive language, wherein they were written,
" you may gain a free and ſafe acceſs to thoſe
" theological myſteries, which he, that is no lin-
" guiſt, muſt either totally ignore, or take upon
" truſt. And certainly a knowledge ſo directly

" conducive

" conducive to that knowledge, that is called *life*
" *eternal*, cannot but deſerve the being laboured
" for. And to ſatisfy you, that the difficulties of
" attaining ſo precious a knowledge are not inſu-
" perable, I ſhall tell you, that I have a young
" kinſwoman newly marriageable, who to the
" French and Latin hath added ſkill enough in
" the Greek and Hebrew tongues to read the two
" teſtaments in them. I am glad to hear by Mr.
" *Lillyes*, that you have got ſo good an inſtructor
" as Mr. *Bythner*, whoſe ſhort grammar of the
" laſt edition is that, for which I left off many
" others of the moſt approved, after having ſur-
" veyed them all. But his inſtitutions being al-
" moſt confined to the etymological part of gram-
" mar, are chiefly proper for a beginner; and
" therefore, when you are proficient enough to
" decline moſt nouns, and conjugate (though not
" all verbs) all ſorts of verbs; it would be re-
" quiſite for the ſyntactical part of grammar to
" have recourſe to ſome, that have handled it
" expreſly; wherein next *Glaſſius* (whoſe works
" are voluminous enough, and of various ſubjects,
" but, in my green judgment, theological and
" excellent) the elder *Buxtorfius* hath been the
" moſt full and accurate of thoſe I have yet met
" with. There is likewiſe an old book of *Flacius*
" *Illyricus*, which he calls *Clavis Scripturæ*, which,
" though little taken notice of, is more than a
" little uſeful, and very well worth peruſing; ſince
" giving the reader a particular account of the
" Hebraiſms, as they lie in ſcripture, he often-
" times teaches him at once both grammar and di-
" vinity. But I muſt beg your pardon for trou-
" bling you with theſe perhaps needleſs advertiſe-
" ments: I have cauſe to believe Mr. *Bythner*'s
" will be much riper; only the prejudice I ſuſtain-

" ed, by not having ſeaſonably an addreſs to the " authors I have named, makes me willing, ra- " ther to hazard the exerciſe of your patience by " ſuperfluous directions, than venture to let you " miſpend any of your ſtudious hours, for want " of ſuch addreſſes, as are not bad, though they " prove not the very beſt. I forget to tell you, " that there is one *Gerhard* (ſon of the famous " Lutheran divine) who hath publiſhed an Har- " monical Synopſis of the Hebrew, Chaldee, Sy- " riac, Arabic, and Ethiopic tongues; which " would be no bad iſagogue to the Eaſtern langua- " ges, if it were not ſo wretchedly falſe printed, " that it expoſes the learned in almoſt every page " to perplexities or miſtakes. I wiſh I could give " you ſome account of my ſtudies here; but I " muſt ſadly confeſs, that the perpetual hurry I " live in, my frequent journeys, and the neceſſary " trouble of endeavouring to ſettle a very long " neglected and disjointed fortune, have left me " very little time to converſe with any book, ſave " the Bible, and ſcarce allowed me leiſure to ſew " together ſome looſe ſheets, that contained my " thoughts about the ſcripture, of which I wiſh I " had a copy to ſubmit to your cenſure. But I " hope by God's bleſſing to be able to bring over " one myſelf this ſpring into your parts; to which " it is not my leaſt of invitations, that I ſhall there " enjoy the happineſs of a converſation, that hath " made me upon ſo many ſcores,

" SIR,

" your moſt affectionate friend

" and obliged humble ſervant,

" ROBERT BOYLE.

My

"MY moſt humble ſervice, Sir, I beſeech you, "to Sir *Thomas Mallet* and my lady, and the fair "young lady you are happy in. And I ſhall beg "you to do me the favour to convey my high re- "ſpects to the *Sherbone* family, when you go thi- "ther. The news here is not conſiderable enough "to deſerve your notice. My friends here are, "God be praiſed, well, and thoſe that have the "happineſs to know you, much your ſervants."

HE came back from *Ireland* to *England*, probably about Auguſt 1653, and was at *London*, where he met with Dr. *John Wilkins*, then warden of *Wadham* college in *Oxford*, and afterwards biſhop of *Cheſter*, to whom he intimated his reſolutions of ſettling at *Oxford* [n]. In September he was a few days at *Stalbridge*; but being obliged by his affairs to return to *Ireland*, in his way thither he wrote the following letter to his friend Mr. *Mallet*.

"SIR,

"IF the ſuddenneſs of that unwelcome neceſſity, "which hurried me from *Stalbridge*, would "have allowed me ſo much as two days ſtay in "thoſe parts, I ſhould not be now reduced to "make you an apology for my leaving *Stalbridge*, "before I kiſſed your hands at *Poynington*. And "though the urgency of my occaſions allowed "me but one day to pack up bag and baggage, "and ſettle my affairs there, I ſhould have ſpent "part of that day in paying you the duty, and "giving myſelf the ſatisfaction of a viſit, if the "greateſt obſtacle, my haſte put to my deſires, "had not been the tiredneſs of my horſes by my "preceding journies. The apprehenſion of loſing

[n] See Dr. *Wilkins*'s letter of Sept. 3, 1653, Vol. V. p. 629, 630.

"my

" my paſſage, unleſs my arrival here prevented
" the feared change of the wind, poſted me ſo
" abruptly hither, that it allowed me to comply,
" neither with my civility, nor with my inclinati-
" ons, the latter of which are never more gratified
" than in your charming converſation, which the
" wind's croſſneſs ſince my arrival here makes me
" very much regret I did not venture to give my-
" ſelf the happineſs of. The ſad condition of *Ire-*
" *land* making me ſomewhat irreſolute of my go-
" ing thither this winter, I do not wholly deny
" myſelf the pleaſing thoughts of being happy in
" your company at *Poynington*. But in caſe a fair
" wind blow away thoſe thoughts, I muſt implore,
" in the want of your immediate converſation,
" that which is practiſed by letters, as the next
" contentment to the former by nearlieſt ap-
" proaching it. In the neceſſity of repairing into
" *Ireland* to ſettle my affairs there, now things
" ſeem tending to a ſettlement in that unhappy
" country, I ſhall leave behind me at *Stalbridge*
" the bearer, *Roger Ball*, and with him a leaſe of
" that manor for ſome yet unexpired years; in
" which leaſe you were pleaſed to allow me to
" have your name put in as a truſtee for me.
" The reaſon of my mentioning this to you is,
" that by the miſtaking confidence of honeſt old
" Mr. *Mawdeſley*, then ſteward of my courts at
" *Stalbridge*, I made ſeveral grants there, as pre-
" ſuming I had power to do ſo; which, upon
" more knowledge of the law, and a more heedful
" peruſal of my own more than ordinarily ſtrict
" entail, I found, though hardly overthrowable
" in equity, yet to be queſtionable in ſtrictneſs of
" law. My juſt tenderneſs in caſes of this nature
" made me extremely troubled, that my ignorance
" had made me do what knowingly nothing ſhould;

" and therefore by Sir *Thomas Mallet*'s excellent " advice, finding a leaſe of *Stalbridge* for about " thirty years unexpired to remain in the hands of " an old ſervant of my father's, I made it one of " my motives to go into *Ireland*, and one of my " concerningeſt buſineſſes there, to get this leaſe " aſſigned over in truſt to your ſelf and *Roger Ball*, " with whom I have left order, that in caſe God " ſhould call me to himſelf before my return to " *Stalbridge*, he ſhall beg you to join with him " in making every tenant, whoſe grant is queſ- " tionable, a leaſe of as many years, as your au- " thority extends to grant, that ſo theſe poor " men, in caſe their titles (contrary to my expec- " tation and to probability) ſhould be overthrown " as to their firſt grants, may have a good title " to all the unexpired years of your leaſe; and " that number, according to common eſtimation, " will be as advantageous, if not better, than their " firſt grants. I find, Sir, no ſmall trouble in the " neceſſity of giving you this great one; but I " am confident you are ſuch a friend to juſtice, " that you will pardon a fault, that proceeds only " from ſome tenderneſs of that virtue in a ſervant " of yours, who very well knowing gratitude to " be a virtue, as well as juſtice, if not part of it, " is not made more deſirous by the laws of the " former virtue to ſecure his tenants, than the du- " ties of the latter will make him of the opportu- " nity of expreſſing and evincing, how highly he " is Mr. *Mallet*'s

Briſtol, Sept. 23, 1653. " affectionate, faithful,

" and obliged humble ſervant,

" ROBERT BOYLE.

" I SHALL

" I SHALL beg the favour of having my moſt " humble ſervice preſented to Sir *Thomas Mallet* " and my lady, and to your own fair lady, with " the reſt of your family ; to all which you have " engaged me to be a ſervant. If the bearer " ſhall, in my abſence, apply himſelf to you for " directions, your vouchſafing them to him will " very much oblige me. If you pleaſe to make " me at any time happy in your letters, it will as " well inſtruct as ſatisfy me, to be informed, how " you proceed in relation to your Eaſtern ſtudies."

HE purſued his intended journey to *Ireland*; for we find him there in January 1653-4 [o], where he propoſed to continue till Midſummer 1654 [p], though his reſidence in that kingdom was by no means agreeable to him, ſince in a letter [q], which he wrote in the beginning of that year to Mr. *Clodius*, an eminent chemiſt, who married the daughter of Mr. *Hartlib*, he ſtiles it " a barbarous " country, where chemical ſpirits were ſo miſun- " derſtood, and chemical inſtruments ſo unprocu- " rable, that it was hard to have any Hermetic " thoughts in it." For this reaſon he exerciſed himſelf in making anatomical diſſections, being aſſiſted therein by his friend, Dr. (afterwards Sir) *William Petty*, then phyſician to the army and to the deputy of *Ireland*, and one of the moſt extraordinary men of his time, who in 1648, at the age of twenty five, inſcribed to Mr. *Hartlib*, *Advice for the Advancement of ſome particular parts of Learning*, printed at *London* in 4to ; in which he gives plans of a mechanical and medical college, wherein youths might be educated, and the hiſtory

[o] See Mr. *Hartlib*'s letter to him of Feb. 28, 1653-4, Vol. V. p. 257.

[p] Ibid. p. 242, and 261. [q] Ibid. p. 241, 242.

of

of all mechanical arts and trades tranſmitted to poſterity; and this piece ſeems to have been one of the firſt draughts of a philoſophical college, that was ever made in *England*. Mr. *Boyle* was brought acquainted with this gentleman by means of Mr. *Hartlib*, as early as the year 1647 [r]; and received great advantage, while he continued in *Ireland*, from his converſation and their joint ſtudies in anatomy; in the courſe of which "I ſatisfied my-"ſelf (ſays he [s]) of the circulation of the blood, "and the freſhly diſcovered and hardly diſcover-"able *receptaculum chyli* made by the confluence "of the *venæ lacteæ*, and have ſeen (eſpecially in "the diſſections of fiſhes) more of the variety and "contrivances of nature, and the majeſty and wiſ-"dom of her author, than all the books I ever "read in my life could give me convincing no-"tions of."

HE made alſo ſtrict enquiries after the minerals, which *Ireland* afforded; and though he could meet with few, who had either ſkill or curioſity in that way, yet ſilver ore was brought to him, which was found upon one of his brother's eſtates, that upon trial was eſtimated to be worth between thirty and forty pounds a tun. A ſilver mine was then farmed of the ſtate; and he was aſſured by experienced men, that *no country in Europe was ſo rich in mines as Ireland, had but the inhabitants the induſtry to ſeek them, and the ſkill to know them* [t].

AFTER his return to *England*, which was probably, according to his intentions, in the latter end of June, 1654, he went to reſide at *Oxford*, in order to proſecute his ſtudies with the greater advantage, and continued there for the moſt part till April 1668, when he ſettled at *London* in the houſe of his ſiſter *Ranelagh* in *Pall-Mall*. At *Ox-*

[r] Vol. V. p. 256. [s] Ibid. p. 242. [t] Ibid.

ford

ford he choſe to live in a private houſe, rather than in a college, both for his health, and becauſe he had more room and conveniency to make experiments, than he could have had in a ſociety. The perſon, with whom he lodged, was Mr. *Croſſe*, an apothecary, whoſe great acquaintance with Dr. *John Fell*, afterwards biſhop of *Oxford*, (who made him one of the executors of his pious and charitable will,) and his own noble foundation of an hoſpital near *Ampthill* in *Bedfordſhire*, for the maintenance of thirteen decayed citizens of *Oxford*, give him a right to be mentioned with honour in this hiſtory [u]. *Oxford* indeed was the only place in *England*, where at that time Mr. *Boyle* could have lived with much ſatisfaction to himſelf. Dr. *Wilkins*, who had married a ſiſter of *Oliver Cromwell* the Protector, was a man of excellent temper, and admirable abilities, and by the influence of his example and authority, ſupported a ſpirit of rational piety, and a right taſte of learning in that univerſity. Dr. *John Wallis* and Dr. *Seth Ward*, the two Savilian profeſſors of geometry and aſtronomy, Dr. *Thomas Willis*, the phyſician, then ſtudent of *Chriſt-Church*, Mr. *Chriſtopher Wren*, then fellow of *All-Souls* college, Dr. *Goddard*, warden of *Merton* college, Dr. *Ralph Bathurſt*†, fellow of *Trinity*, and afterwards preſident of the ſame, and dean of *Wells*, were eminent likewiſe for their genius and application to the moſt uſeful parts of literature, which theſe great men united their endeavours to cultivate and promote. For this purpoſe they held frequent meetings, in which they conferred chiefly on philoſophical ſubjects; and being ſatisfied, that there was no certain way of arriving at any competent knowledge, unleſs they

[u] Dr. *Wotton*'s papers, c. iii. §. 1.

† Warton's Life of Dr. Bathurst: 1761. fo. 45. made

made a variety of experiments upon natural bodies, in order to diſcover what phænomena they would produce, they purſued that method by themſelves with great induſtry, and then communicated their diſcoveries to each other.

THIS was an employment, and this a ſociety, which exactly ſuited Mr. *Boyle*'s inclinations. He had before laid in a great ſtock of mathematical and chemical knowledge: and as for the *Ariſtotelian* way of explaining the phænomena of nature, he rejected it, as a mere ſyſtem of words, that would never make any man more intelligent than he was before. The *Carteſian* philoſophy began to make a noiſe in the world; but he reſolved to acquieſce in no ſingle man's hypotheſis, and to draw no concluſions from premiſes in natural things, which he could not actually verify himſelf; and ſo for many years he would not read over *Des Cartes*'s *Principles*, leſt he might be biaſſed by the ingenuity or authority of that philoſopher. With theſe diſpoſitions he ſet himſelf to philoſophiſe, and to perſuade the nobility and gentry of the nation, who had the means and leiſure to purſue ſuch ſorts of ſtudies, to follow his example. He was convinced, that it would be of ineſtimable uſe to mankind to engage them in theſe enquiries; it would divert them from thoſe impertinent and criminal amuſements, with which moſt of them buſied themſelves, and would make them not only better Chriſtians, but likewiſe more uſeful members of ſociety.

IT was during Mr. *Boyle*'s reſidence at *Oxford*, that he invented that admirable engine, the *Air-Pump*, which was perfected for him, in 1658 or 1659, by the very ingenious Mr. *Robert Hooke*, after he had ſeen a contrivance for that purpoſe by Mr. *Graterix*, which was too groſs to perform any great

great matters [x]. Mr. *Hooke*, who was afterwards profeſſor of geometry in *Greſham* college, and doctor of phyſic, then lived with Mr. *Boyle*, whom he aſſiſted in chemiſtry, having been recommended to him by Dr. *Willis* the phyſician, whom he had before ſerved in the ſame capacity [y]. By this engine Mr. *Boyle* made ſuch experiments, as have gone very far to enable him, and thoſe who have ſucceeded him, to form a juſt theory of the air. By this he demonſtrated its elaſticity; and that property alone was a means to find out abundance more. He begun alſo to compoſe hiſtories of its particular qualities, all founded upon experiments or obſervations, of which he kept very exact regiſters, hoping by this means to leave ſuch materials, as future ages might build complete theories upon. There were at that time no philoſophical ſocieties erected in other parts of *Europe:* what men had hitherto performed, they had moſtly done upon their ſingle ſtock, and that rather by the way of abſtracted reaſonings, than by making experiments. In *Italy* indeed the great *Galileo*, and his ſcholar *Evangeliſta Torricelli*, had made ſome experiments, which had excited the curioſity of mankind; as did eſpecially that famous one of the former, in which by a tube filled with water, inverted and plunged into a veſſel of the ſame, he kept a cylinder of it ſuſpended at the height of thirty four feet; by which the weight of the air was firſt demonſtrated. The philoſophy of *Des Cartes* had for ſome years been publickly taught in *Holland*; and though built upon principles very oppoſite to thoſe either of *Ariſtotle*, or the chemiſts, yet had not the neceſſary vouchers of repeated experiments, purpoſely

[x] Life of Dr. *R. Hooke*, by *R. Waller*, Eſq; p. 3.

[y] Mr. *Ward*'s lives of the profeſſors of *Greſham* college, p. 170.

tried,

tried, to make it good. However that philoſopher had done eminent ſervice, in leſſening the devotion, which had been implicitly paid to *Ariſtotle*'s philoſophy, and infuſing an inquiſitive ſpirit into mankind. A diſpoſition to think freely concerning the cauſes of natural things had now ſpread itſelf in *England*, *France*, and *Italy*; and that diſpoſition occaſioned all thoſe alterations in men's way of ſtudy, and produced all thoſe extraordinary diſcoveries of nature, which diſtinguiſhed the laſt age.

BUT philoſophy and enquiries into nature were not the only things, which engaged Mr. *Boyle*'s attention. His eyes were then ſtrong enough to follow thoſe critical ſtudies, which he had begun before, and which he thought neceſſary to underſtand the ſcriptures thoroughly: and for this he had peculiar advantages at *Oxford*. Dr *Edward Pococke*, Mr. *Thomas Hyde* of *Queen*'s college, and Mr. *Samuel Clarke*, who were men of great eminence for their ſkill in the Eaſtern languages, reſided there; and Mr. *Hyde* particularly was frequently conſulted by him during the reſt of his life upon any difficulties, which he met with in the courſe of his reading upon thoſe ſubjects. But one of his moſt intimate friends, with whom he converſed upon theological points, was Dr. *Thomas Barlow*, then chief library-keeper of the *Bodleian* library, and afterwards biſhop of *Lincoln*. The doctor was a man of prodigious reading, and a proportionable memory; he knew what the fathers, ſchoolmen, or canoniſts had ſaid upon any queſtion in divinity, or caſe of conſcience; and being with all theſe accompliſhments very communicative of his knowledge, he gained the higheſt degree of Mr. *Boyle*'s eſteem and friendſhip, who uſed, as long as he lived, to conſult him upon

caſes of conſcience, wherein he was ſure at the ſame time of learning all that had been hitherto urged upon the queſtion propoſed to Dr. *Barlow*[z], many of whoſe anſwers are ſtill extant. But however important theſe advantages were, which he enjoyed at *Oxford*, for the proſecution of his ſtudies, he extended them by a correſpondence with perſons eminent for their knowledge in other parts of *England*, and in foreign countries. Among theſe correſpondents, one of the principal was, *Henry Oldenburg*, Eſq; a native of *Bremen* in *Lower Saxony*, who was for ſeveral years agent for that city in *England*, and afterwards tutor to the lord *Dungarvan*, nephew to Mr. *Boyle*, with whom he travelled abroad in the year 1657. He was at laſt ſecretary to the Royal Society, and died ſuddenly in September 1677, and his wife, the daughter of Mr. *John Dury*, dying about the ſame time, left two orphans, whom Mr. *Boyle* took care of for the preſent, no will of Mr. *Oldenburg* being found, nor had he or his wife any relation in *England*. The firſt letter extant of this gentleman to Mr. *Boyle* is dated April 15, 1657; and in another written from *Saumur* in *France* in the latter end of that year, he mentions his [a] ſatisfaction, that the council had granted Mr. *Boyle*'s deſires for the promotion of knowledge; "which (ſays he) I ſuppoſe "to be thoſe, that were couched in a certain peti- "tion you were pleaſed to impart unto me at "*Oxford*; wherein, if I remember well, a mat- "ter of twelve thouſand pounds ſterling was of- "fered to purchaſe confiſcated lands and houſes "with in *Ireland*, and to commit the profit thereof "into the hands of certain truſtees, for to em- "ploy it in the entertainment of an agent, ſe- "cretary, tranſlators, for keeping intelligence,

[z] Dr. *Wotton*'s papers.

[a] Vol. V. p. 300.

"diſtri-

" diſtributing rewards, *&c.* in order to the end " aforeſaid."

DR. *John Beale*'s letters to him are very numerous, and upon ſubjects of great importance. This divine was born of a good family in *Herefordſhire*, and educated in *Eton* ſchool, whence he was tranſplanted to *King*'s college in the univerſity in *Cambridge*, where he ſoon diſtinguiſhed himſelf by his uncommon genius and learning. He was one of the firſt members of the Royal Society, and in 1665 was promoted to be chaplain to King *Charles* II. He was likewiſe doctor of divinity, and reſided chiefly at his living of *Yeovil* in *Somerſetſhire*, where he died about the year 1683. There are ſeveral of his papers in the *Philoſophical Tranſactions*.

ANOTHER of Mr. *Boyle*'s correſpondents, and moſt intimate friends, was *John Evelyn*, Eſq; of *Wotton* in *Surrey*, born there on the 31ſt of October, 1620, and educated at *Baliol* college in *Oxford*; who having travelled for ſeven years into the politer countries of *Europe*, upon his return to *England*, was one of the firſt of thoſe gentlemen, who met for the eſtabliſhment of the Royal Society. He paſſed through ſeveral conſiderable poſts in the reigns of King *Charles* II. *James* II. and *William* III. and died at *London*, February the 27th, 1705-6, in the 86th year of his age [b]. His works are of various kinds and very valuable; and Dr. *Burnet* [c] ſtiles him *a moſt ingenious and virtuous gentleman*; and informs us, that he was *not ſatisfied to have advanced the knowledge of this age by his moſt uſeful and ſucceſsful labours about planting and divers other ways, but was ready to contribute every thing in his power to perfect other mens endeavours.* His

[b] General Dictionary, Vol. V. p. 126 — 129.
[c] Hiſtory of the Reformation, Part III. B. 3. p. 417.

acquaintance with Mr. *Boyle* began, as he obſerves himſelf, in his letter to Dr. *Wotton* [d], "from courteous viſits he made me at my houſe at *Say's-Court* [e], which I as conſtantly repayed; ſo it grew reciprocal and familiar, divers letters paſſing between us at firſt in civility, and the ſtile peculiar to him upon the leaſt ſenſe of obligation. But thoſe compliments laſted no longer than till we became perfectly intimate, and had diſcovered our inclinations of cultivating the ſame ſtudies and deſigns, eſpecially in ſearch of natural and uſeful things, myſelf then intent on collections of notes in order to an *Hiſtory of Trade*, and other mechanical furniture, which he earneſtly incited me to proceed in. So that our intercourſes of letters were now moſtly upon that ſubject, and were rather ſo many receipts and proceſſes, than matter of letters; what I gathered of this nature, (eſpecially for the improvement of *Gardening* and *Sylva*, *Kalendarium*, *Acetaria*, &c. being but part of that work, a plan whereof is publiſhed) would aſtoniſh you to ſee . . Theſe deſigns and apparatus's growing beyond my forces, were left imperfect, upon the reſtoration of the baniſhed King, when every body expected a new world, and had other proſpects than what the melancholy and almoſt deſpair ſuggeſted to paſs away anxious thoughts by thoſe innocent employments I have mentioned; the eſtabliſhment of the Royal Society taking in all theſe ſubjects; which made our perſonal meeting (unleſs at *Greſham* college, where we aſſiduouſly met and converſed) leſs neceſſary." Among Mr. *Evelyn*'s letters is a very long and cu-

[d] Dated at *Wotton* in *Surrey*, Sept. 10, 1703.
[e] In *Deptford*.

rious one [f], dated at *Say's-Court*, Sept. 3, 1659, and containing a ſcheme of a *Philoſophical College*, in which he wiſhed to have Mr. *Boyle* for a fellow-member, *who is alone*, ſays he, *a ſociety of all, that were deſirable to a conſummate felicity*. And on the 29th of the ſame month he wrote to him another letter [g], upon reading the manuſcript of Mr. *Boyle*'s *Seraphic Love*, which he had done with ſo high a ſatisfaction, that he obſerves at the concluſion of his letter, that "he extremely loved Mr. *Boyle* before, but that his heart was infinitely knit to him now. For what (ſays he) are we now to expect from ſo timely a conſecration of your excellent abilities? The *primitiæ* ſanctified the whole harveſt; and you have at once by this incomparable piece taken off the reproach, which lay upon piety, and the enquiries into nature, that the one was too early for young perſons, and the other the ready way to atheiſm; than which, as nothing has been more impiouſly ſpoken, ſo nor has any thing been more confuted."

Dr. *John Pell* was another of Mr. *Boyle*'s friends. He was deſcended of an ancient family in *Lincolnſhire*, and born at *Southwyke* in *Suſſex*, of which his father was miniſter, on the 1ſt of March $16\frac{10}{11}$. At thirteen years of age he was ſent to *Trinity* college in *Cambridge*, being at that time as good a ſcholar as moſt maſters of art in the univerſity, which degree he took in 1630, and ſoon became eminent for his ſkill in the mathematics, and in the Latin, Greek, Hebrew, Arabic, Italian, French, Spaniſh, and High and Low Dutch languages. He was ſeveral years profeſſor of mathematics at *Amſterdam*, and afterwards at *Breda*, and in 1654 was appointed envoy from the protector *Oliver* to

[f] Vol. V. p. 397, 398, 399. [g] Ibid. p. 399.

the proteſtant cantons in *Swiſſerland*, where he continued till 1658. After the reſtoration he entered into holy orders, and became doctor of divinity, and chaplain to Dr. *Gilbert Sheldon*, archbiſhop of *Canterbury*, though he never enjoyed preferment equal to his merit, and died in mean circumſtances in the pariſh of St. *Giles's in the Fields*, on the 12th of December, 1685, and was interred in that church [h]. Among other pieces publiſhed by him, he tranſlated from the Low Dutch *A Tract touching the ſkill of a better Way of Anatomy of Man's Body, by* Yonker de Bills, *Lord of Koppenſdam*, printed at *London*, in 1659, in 12^mo^; to which Mr. *Boyle* wrote a preface, prefixed to that edition, which was procured by himſelf. Mr. *Hartlib*, in a letter to Mr. *Boyle* from *London*, dated November the 1ſt that year [i], mentions his intention to ſend a copy of this tranſlation and preface to monſieur *Bills* himſelf, *to let him know, what honour hath been done unto him by a young nobleman in theſe parts, and many more to friends in the Low Countries. Really*, continues he, *you have done an excellent work for ſpreading this anatomical magnale upon the honeſt learned world.* He ſent likewiſe the following extract of a letter, which he had juſt received from abroad, with relation to the author himſelf. "Monſieur *Bills* lives at preſent at *Rotterdam* in the *Engliſh Court* (ſo is the name of the houſe, where he lives, in *Rotterdam.*) He is a Frenchman, ſpeaks French, Low Dutch, and Latin. He hath four bodies, two men and two women, ſo anatomiſed, that he can ſhew the inward ſtate of a man's body; for all the parts of the body are in the body, except the guts and brains, which lie by. He

[h] General Dictionary, Vol. VIII. p. 250—253.
[i] See Mr. *Boyle*'s works, Vol. V. p. 292.

"aſketh

" aſketh above 100,000 Dutch guilders, and then " he will teach the anatomy out of them to ſcho- " lars, ſurgeons, &c. He ſaith this coſt him not " only infinite pains and head-breakings, but that " of his own patrimony he ſpent to this work " 60,000 guilders. He affirms, that *Paris* hath " preſented him about 20,000 francs, and *Amſter-* " *dam* about 3000 francs for two *corpora*; but he " will not ſell them apart, but in that manner as " I mentioned. It ſeems it is very rare, that he " anatomiſed in ſuch a manner thoſe bodies, and " prepared alſo, that they can be clearly ſeen, " every thing in his proper place. The like is " never yet done in this world."

DR: *John Wallis* was likewiſe a very intimate friend and correſpondent with our great philoſopher. This excellent divine and mathematician was ſon of a clergyman, and born at *Aſhford* in *Kent* on the 23d of November 1616, and about Chriſtmas 1632 ſent to *Emanuel* college in *Cambridge*, where he took the degree of maſter of arts in 1640, and about the ſame time was choſen fellow of *Queen*'s college in that univerſity, and received holy orders from Dr: *Walter Curle* biſhop of *Wincheſter*. In 1644 he was appointed one of the ſcribes or ſecretaries to the aſſembly of divines at *Weſtminſter*, being at that time miniſter of St: *Gabriel Fen-church* in *London*, whence he removed to the church of St: *Martin Ironmonger Lane*; and in 1649 was made Savilian[a] profeſſor of geometry in the univerſity of *Oxford*; and on the 31ſt of May 1654 took the degree of doctor of divinity. February the 17th, 1657-8, he was choſen *Cuſtos Archivorum* of that univerſity; in which place, as well as in his profeſſorſhip of geometry, he was confirmed at the reſtoration, when he became chaplain

Hearne's Peter Langtoft's Chronicle: 1725, Publish'd with Appendix & Preface: pa: CXLI:-

Pointer's Oxoniensis Academia: 1749 page: 246.

chaplain to his Majeſty *. He died October the 8th, 1703, being eighty ſeven years, three months, and five days old, and was interred in the choir of St: *Mary*'s church in *Oxford*, where a monument is erected to his memory, though the moſt valuable one is the collection of his own writings, publiſhed together in Latin at *Oxford* in 1699, in three volumes folio. His early regard for Mr: *Boyle* is evident from his dedication to him of his book *de Cycloide & Corporibus inde genitis*, with this inſcription; *Honorabili doctiſſimoque Viro D: Roberto Boyle armigero, tum illuſtri familiâ, tum magnis virtutibus nobili*; and in his dedication he takes notice of Mr: *Boyle*'s eminent ſkill in divinity, in the ſacred and ancient, as well as modern languages, and in political and publick affairs both at home and abroad; and his inceſſant and ſucceſsful cultivation of true philoſophy by experiments of all kinds, *&c. Qui præter tuam in theologicis tum cognitionem tum praxin, atque in linguis tum ſacris antiquiſque, tum modernis etiam peritiam, in politicis item & negotiis publicis, & rerum & perſonarum, domi peregréque, intimam notitiam,*

Qui mores hominum multorum noris & urbes;

in phyſicis etiam & veræ philoſophiæ venatione ita perpetuis & ſubtiliſſimis experimentis, medicis, chemicis, anatomicis, aliiſque omne genus, naturam quaſi ferro & igne proſequaris, (nedum per omnes ſubtiliorum in quacunque arte opificum officinis) in ſecretos abditiſſimoſque ſequeris receſſus, & quaſi in viſcera penetras, ut mirum ni tibi tandem ſe in prædam dedat: quique naturam, tanquam equuleo impoſitam, ſeverâ ſaltem, ne crudeli dicam, quæſtione, torquendo vexas & retorquendo, quo verum tandem faſſa ſecreta pandat

* General Dictionary, Vol: X. p: 89—101.

omnia;

omnia: idem, in matheſi, æquationes analyticas (equuleum mathematicum) verſas, quo vix ſubtilius aliud inſtrumentum abdita perquirendi aut extricandi involuta.

IN the ſame year 1659 Mr: *Boyle* being acquainted with the circumſtances of the learned Dr: *Robert Sanderſon*, afterwards biſhop of *Lincoln*, who had loſt all his preferments on account of his attachment to the royal party, he conferred upon him an honorary ſtipend of fifty pounds a year. This ſtipend was given as an encouragement to that excellent maſter of reaſoning, to apply himſelf to the writing of *Caſes of Conſcience*, 1. "Explaining the nature of conſcience, the obligation of it, how far that extends, and the reaſons of it, with ſome univerſal principles and general rules concerning it, *in theſi*; and then, 2. *in hypotheſi*, to fall to the reſolving particular caſes[1]." Dr: *Sanderſon* therefore publiſhed his treatiſe, entitled, *De Obligatione Conſcientiæ Prælectiones decem, Oxonii in Scholâ Theologicâ habitæ anno Domini* 1647, and addreſſed it to Mr: *Robert Boyle* in an elaborate dedication, dated at *Boothby Pannel* in *Lincolnſhire*, November 22, 1659; wherein he ſpeaks of his patron as much more diſtinguiſhed by his excellent diſpoſitions, love of learning, humanity, piety, and all kinds of virtue, than by his birth and quality: *Cum natalium ſplendore illuſtrem, tum generoſæ mentis indole, amore literarum, humanitate, pietate, & omni virtutum genere multo etiam illuſtriorem.*

UPON the reſtoration in 1660, Mr: *Boyle* was treated with great civility and reſpect by the King as well as by the earl of *Southampton*, lord high

[1] Dr: *Barlow*'s letter to Mr: *Boyle*, Sept: 13, 1659. Vol: V: p: 406. See likewiſe *Iſaac Walton*'s life of biſhop *Sanderſon*, and biſhop *Barlow*'s letter to *Walton*, dated at *London* May 10, 1678. and ſubjoined to *Walton*'s *life of biſhop* Sanderſon. Edit: 1678

treaſurer,

treaſurer, and the earl of *Clarendon*, lord chancellor of *England*. And he was ſolicited by the latter to enter into holy orders, not only out of regard to him and his family, but chiefly with a view to the ſervice of the church itſelf, which could not but receive a great ſupport, as well as a powerful example, from one, who would ſoon be raiſed to one of the higheſt ſtations in it. This, as he owned to biſhop *Burnet*, made ſome impreſſion upon him. His mind was even then at three and thirty ſo entirely diſengaged from all the projects and concerns of this world, that as the proſpect of dignity in the church could not move him much, ſo the probability of his doing good in it was much the ſtronger motive. But two things determined him againſt it. One was, that his having no other intereſts with relation to religion, beſides thoſe of ſaving his own ſoul, gave him, as he thought, a more unſuſpected authority in writing or acting on that ſide. He knew, that the irreligious fortified themſelves againſt all, that was ſaid by the clergy, with this, that *it was their trade*, and that *they were paid for it*. He hoped therefore, that he might have the more influence, the leſs he ſhared in the patrimony of the church. But his main reaſon was, that he had ſo high a ſenſe of the obligations, importance, and difficulty of the paſtoral care, that he durſt not undertake it; "eſpecially, ſays biſhop *Burnet* [m], not having "felt within himſelf *an inward motion to it by the* "*holy Ghoſt*; and the firſt queſtion, that is put "to thoſe, who come to be initiated into the ſer- "vice of the church, relating to that *motion*, he, "who had not felt it, thought he durſt not make

[m] Funeral Sermon on Mr. *Boyle*, p. 29. edit. in 4to, and memorandums dictated by Mr. *Boyle* to biſhop *Burnet* concerning his own life.

"the

" the ſtep, leſt otherwiſe he ſhould have lied to " the holy Ghoſt. So ſolemnly and ſeriouſly did " he judge of ſacred matters." He choſe therefore to purſue his philoſophical ſtudies in ſuch a manner, as might be moſt effectual for the ſupport of religion; and began to communicate to the world the fruits of thoſe ſtudies. The firſt of theſe was printed in 1660 at *Oxford*, in 8vo, under the title of *New Experiments phyſico-mechanical touching the Spring of the Air and its Effects, made for the moſt part in a new pneumatical Engine: written by way of letter to the right honourable* Charles, *lord viſcount of* Dungarvan, *eldeſt ſon to the earl of* Corke: dated at *Beconsfield* December the 20th, 1659. In this diſcourſe he diſcovered and demonſtrated the elaſtic power or ſpring of the air, and by this means exploded the notion of a *Fuga Vacui*, and ſhewed, that the ſtrange effects, which were before aſcribed to that imaginary cauſe, ariſe merely from the native ſelf-expanſion of the air. The extent of which elaſtic expanſion he found divers ways to meaſure by his engine, which likewiſe diſcovers the influence, which the air hath upon flame, ſmoke, and fire; that it hath none in magnetical operations; that it is probably greatly interſperſed in the pores of water, and compreſſed by the incumbent atmoſphere even in theſe cloſe receſſes: what operation the exſuction of the air hath on other liquors, as oil, wine, ſpirit of vinegar, milk, eggs, ſpirit of urine, ſolution of tartar, and ſpirit of wine: the gravity and expanſion of the air under water: the effect of the air in the vibrations of pendulums, and in the propagation of ſounds: that fumes and vapours aſcend by reaſon of the gravity of the ambient air, and not from their own poſitive levity: the nature of ſuction, the cauſe of filtration, and the riſing of the water in

ſico-chemical Eſſay containing an Experiment, with ſome Conſiderations touching the differing Parts and Redintegration of Salt-Petre. V. *The Hiſtory of Fluidity and Firmneſs.* In the *Advertiſement to the Reader* it is obſerved, that theſe tracts were not written near about the ſame time, (ſome of them being divers years older than others,) nor were they now publiſhed in the ſame order, in which they were written. For the firſt of them, though drawn up about four years before, *viz.* in the year 1657, was not only written after the ſecond, third, and fourth, but after divers other Eſſays, which Mr. *Boyle* had then lying by him among his papers, it being intended for a kind of introduction to all thoſe treatiſes, which under ſeveral names, but chiefly that of *phyſiological Eſſays*, he had then compoſed. But having, during the confuſions before the reſtoration, ſo diſpoſed of his papers to ſecure them, that he could not himſelf ſeaſonably recover them; and being engaged by promiſe to ſome friends to let about half a dozen of his ſmall tracts come abroad into the world by ſuch a time, he was obliged to ſend them to the preſs, as they came, ſome at one time, ſome at another, to his hands. The greateſt part of them are addreſſed to his nephew Mr. *Richard Jones*, only ſon to the lord viſcount *Ranelagh* by Mr. *Boyle*'s ſiſter. In theſe *Eſſays* and *Tracts* he encourages and perſuades the making *Experiments*, and collecting *Obſervations*, and gives the neceſſary cautions, which are to be uſed in ſuch deſigns. He imparts a very conſiderable luciferous experiment concerning the different parts and redintegration of *Salt-petre*; from which he ſhews, that *motion*, *figure*, and *diſpoſition* of parts are ſufficient to produce all the *ſecundary Affections* of bodies, and conſequently that there is no need of the ſubſtantial forms and qualities

lities of the ſchools. In the *Hiſtory of Fluidity* he ſhews, that a body ſeems to be fluid by conſiſting of corpuſcles touching one another only in ſome parts of their ſurfaces; whence, by reaſon of the numerous ſpaces between them, they eaſily glide along each other, till they meet with ſome reſiſting body, to whoſe internal ſurface they exquiſitely accommodate themſelves; and that the requiſites to fluidity are chiefly theſe; ſmallneſs of the component particles, a determinate figure of them, vacant ſpaces between them, and agitation of them variouſly and apart by their own innate motion, or by ſome thinner ſubſtance, which ſhall toſs them about in its paſſage through them. He ſhews likewiſe, how a conſiſtent body may be rendered fluid; and having illuſtrated the doctrine of fluidity by experiments, obſerves, that the reaſon, why ſome fluids will not mix with others, is their particular textures, and the peculiar motion of their minute parts. In the *Hiſtory of Firmneſs* he informs us, that firmneſs conſiſts principally in this, that the particles, which compaſs it, being ſomewhat groſs, are alſo at reſt, and have a mutual coheſion, whereby they are rendered unapt to diffuſe themſelves every way; ſo that its three principal cauſes appear to be groſſneſs, quiet contact, and implication of the component parts. He obſerves, that a juxta-poſition of parts is not the only cauſe of coheſion, but that the ſpring and weight of the air is one great cauſe; though a juxta-poſition of the parts of glaſs ſeems requiſite and ſufficient to make ſuch a compact ſubſtance, the parts of matter, which compoſe it, being firſt minutely divided by the fire before their union. He further tells us, that both the figures and textures of the parts of a body may not only contribute to their ſolidity, but that the interpoſition of the minute parts of

another body may render ſome liquors ſolid, and that the addition of a powder only may make a liquor ſolid: that fluids conſiſt not of parts diviſible into fluids, as quantity into quantity: that there is a plaſtic power inherent in ſeveral bodies; and that mixture itſelf is ſufficient to produce putrefaction. Theſe Eſſays were tranſlated into Latin. The ſecond edition of them was printed at *London* 1669, in 4to, and in it ſome of the Tracts were enlarged by experiments, and an addition made to it of *A Diſcourſe about the abſolute Reſt of bodies.*

THESE *Eſſays*, together with his *New Experiments*, being ſent by Mr. *Hartlib* to Mr. *John Beale*, the latter wrote the following letter concerning them [p].

" THIS day I received the books, ſo that I can-
" not ſo ſuddenly give you my judgment on
" them: only this I can ſay, that if an oracle had
" offered me my choice of what queſtions I moſt
" deſired to be informed, I am well aſſured, that
" thoſe, that are handled by Mr. *Boyle*, had been
" the very firſt matter of my election. He wants a
" ſpirit, that takes not pneumaticals to be the ſpring
" of life, and weightieſt of naturals, and now moſt
" conſiderable, ſince *Jordanus Brunus* and others
" have inclined our modern philoſophers to ap-
" proximate air to the chief of the ambient hea-
" vens. And for my own part, I have long con-
" ceived this ambient air to conſiſt of as many
" and different ingredients, as our earth or ſeas,
" but I never expected in this life to ſee the
" diverſities ſo handled and traced out, and the
" properties ſo fully diſcovered; yet this I am

[p] Mr. *Hartlib* ſent a copy of that letter to Dr. *Worthington* incloſed in one from himſelf, dated Aug. 26, 1661. communicated to me by Mr. profeſſor *Ward*.

" inforced

" inforced to confeſs before I have ſeen half of " the book. In the other treatiſes I am informed " of the cauſe of ſuch frequent miſconduct in the " beſt kind of medicines, and the ſtrange Protean " force of ſalt-petre, and that nitre, which is ſo " highly ſtiled by ſome, as if it were the ſpirit of " the world. For the Corpuſcularian philoſophy, " I had long ago complained to you, that Sir " *Kenelm Digby* and ſome others had ſaid enough " of it to make me giddy in their *pro & contra*; " and my refuge was lord *Bacon*'s *Circa ultimates " rerum fruſtranea eſt inquiſitio.* But now I ſee a " ſtay for the light of reaſon and experience. Nei- " ther had I any thing more in chace than the " cauſe of *firmneſs*, which in lord *Bacon*'s language, " (who firſt awakened my attention to it,) is fre- " quently called *conſiſtency*. Being now in my de- " votions before the oracle, you can expect but " few lines, and in theſe my advice, that you pro- " cure them for yourſelf before they are all gone " out of the ſhops; for I ſupplicate, that theſe " may rather return to you in caſh than in kind. It " is my great joy, that Mr. *B.* is ſo far engaged to " give us the reſt of his Notes and following Ex- " periments. In theſe he hath obliged all the in- " telligent inhabitants of this world, and hath giv- " en us hope, that we ſhall ſhortly complete hu- " man ſciences. Some families amongſt us have " anſwered to all lord *Bacon*'s votes for *Advancement " of Learning*; and this honourable family deſerves " to be reputed the firſt college in this univerſity " or oecumenical academy."

And in another letter he wrote as follows:

" My laſt was very abrupt and conciſe, becauſe " at that time, as I then told you, I was attentive " in my devotions before the noble oracle, which

" I may now, upon the reviewed ſolemnities of " holy oath, ſtile the moſt ſatisfying oracle in my " apprehenſions, that ever appeared in the con- " verſe of mortals on this habitable globe, for the " diſcovery of all the works of nature. To thoſe, " that have been ſo tired and wearied, as I have " been, in the ſeveral ways of *Toleſus*, *Flood*, *Gaſ-* " *ſendus*, the Carteſian, and Atomical or Corpuſ- " cularian philoſophers, and all others, that I " could hear of ever ſince I was concerned in the " victory of ſchool-ſophiſters: to thoſe, I ſay, that " have condeſcended to take deep notice of the " inſufficiency of language, and conjectures, and " ungrounded ratiocinations, and have ſubmitted " their patience to the ſeverity of lord *Bacon*'s in- " quiſitions, and, amongſt theſe, to myſelf, here " are offered ſuch pleaſing refreſhments, as gain " us the reliſh of that *Virgilian* ſimplicity, which " was ſo highly admired by *Scaliger* in theſe verſes;

" *Tale tuum carmen nobis, divine poeta,*
" *Quale ſopor feſſis in gramine, quale per æſtum*
" *Dulcis aquæ ſaliente ſitim reſtinguere rivo.*

" To indulge my own freedom, and a little to " practiſe my pen and judgment in the impartial " collections of other men's deepeſt or moſt in- " ticing reaſonings, I had in philoſophy and theo- " logy reduced *Interlocutores* in the manner of " *Tully*'s *Oratory* and his *Academical Queſtions*, to " offer their ſeveral ſtrengths, (as you have ſeen a " ſpecimen pretending to the vindication of a ru- " ral life,) for which academical ſcene I had long " ago provided thoſe arguments in theology, which " have ſwayed no leſs men than *Grotius* and the " earl of *Briſtol*, and do make the loftieſt cedars " ſtagger and revolt ſeveral ways, at as much un-

" certainty

" certainty, as the variation of the compaſs. And " from all theſe I could procure a concurrence " as to the unchangeable oracle for a holy life. " For philoſophical ſatisfactions I did chiefly ad- " dreſs to philoſophical experiments, in which I " ſeemed to have the beſt overtures of aid from " lord *Bacon*; but of this I complained, that in " the progreſs of late years we had not brought " his experiments, or added our own, to any degree " of ripeneſs. And this was indeed my diſcou- " ragement. Now I confeſs I am ſurpriſed with " wonder at the preſent advancement; and I dare " promiſe our poſterity, that knowledge ſhall in " this following age abound in very great perfec- " tion, and to the beſt of noble operations. I can " now no longer forbear to enquire for the return " of Mr. *Oldenburg*, which was promiſed ſome " weeks ago. From him I hope to be informed " when Mr. *Boyle* will be pleaſed to oblige the " world with the publication of his other works:

" 1. THAT of *promiſcuous Experiments* menti- " oned in the ~~*philoſophical Eſſays*~~ *Physiological*, p. 14, 15, 16.

" 2. THE *Dialogues concerning Heat, Flame, and* " *Fire*, mentioned in theſe *new Experiments*, p. " 104, 119, and 222.

" 3. THE *magnetical Steams of the Earth* men- " tioned *ibid.* p. 120.

" 4. THE *Continuation of Experiments made by* " *the pneumatical Engine.*

" AND this we may well diſcern, that nothing " can drop from his pen, that doth not oblige the " future ages univerſally; neither can preſent envy " appear againſt ſuch bright luſtre. I pray you " be mindful to lay this load upon Mr. *Oldenburg*, " for it enables him to oblige us in that ſweet en- " tertainment of hope and expectation, which eaſe- " eth all kinds of griefs. The note of animals in

" vinegar, *Phil. Eſſays*, p. 40. may ſhew, what " conſiderable uſe may yet be made of our beſt " magnifying glaſſes, if the overtures were well " proſecuted."

THE next work, which Mr. *Boyle* publiſhed in 1661, was his *Sceptical Chemiſt: or Chemicophyſical Doubts and Paradoxes, touching the Experiments, whereby vulgar Spagiriſts are wont to endeavour to evince their Salt, Sulphur, and Mercury, to be the true Principles of Things:* Oxford, in 8vo. To the ſecond edition, printed at *Oxford* 1679 [q], in 8vo, are ſubjoined *divers Experiments and Notes about the Produciblenes of chemical Principles.*

IN this treatiſe he obſerves, that the number of the *Peripatetic Elements* and *chemical Principles* is doubtful; and that the words *Element* and *Principle* are here uſed as equivalent terms, and ſignify thoſe primitive and ſimple bodies, of which the mixed ones are ſaid to be compoſed, and into which they are ultimately reſolved: that the matter of all bodies was originally divided into ſmall particles of different ſhapes and ſizes; and that theſe particles might unite into ſmall parcels not eaſily ſeparable again: that a great variety of compounds may ariſe from a few ingredients: that various ſubſtances are obtainable from bodies by fire: that fire is not the true and genuine analyſer of bodies, ſince it does not ſeparate the principles of a body, but variouſly compounds and alters the texture of a body, which it acts upon: that ſome things obtained from a body by fire were not its proper ingredients: that all compound bodies differ only in ſome mechanical properties: that it does not appear, that three is preciſely and univerſally the

[q] The title page erroneouſly ſays 1680. See the *Advertiſement*.

number of the diſtinct ſubſtances or elements, into which all mixed bodies are reſolvable by fire: that ſome bodies afford more than three principles: that earth and water are to be reckoned among the chemical principles, and at leaſt one certain alkaline, if not alſo an acid ſpirit. He cenſures the ambiguity of the chemical writers, and ſhews, that the chemical principles are diſſimilar in their nature. He enquires, whether the five chemical principles ſhould be rejected for not being homogeneous; whence the notion of theſe principles aroſe; whether fire be neceſſary in the compoſition of bodies; and whether there be any elements at all. He ſhews, that bodies are not compoſed from all the mere elements, by the growth of bodies, vegetables, animals, minerals and metals, and the analyſis of bodies: that the *tria prima* ſeem to be the productions of fire: that neither phlegm nor earth are univerſal and pre-exiſtent ingredients of mixed bodies: that gold itſelf is deſtructible, and new qualities producible in bodies by a mere change of texture: that chemical principles are tranſmutable, as appears from the phænomena afforded by an eſſential oil in repeated diſtillations: that thoſe principles are not ingenerable and incorruptible: that ſalts may be produced and deſtroyed; and that alkalies are tranſmutable into other ſubſtances, and common ſalt, different kinds of ſpirits, ſulphurs, mercuries, phlegm, and earth are producible. He informs us, that the chemical theory of qualities is narrow, defective, and uncertain, ſuppoſing things not proved, often ſuperfluous, and frequently contradicting the phænomena of nature. That the principles found in bodies are not the cauſe of their qualities, but that contrary qualities are aſcribed to the ſame body: that, upon the whole, the chemiſt's ſalt, ſulphur, and mer-

cury, themſelves are not the firſt and moſt ſimple principles of bodies, but rather primary concretions of corpuſcles or particles more ſimple than they, as being indued only with the firſt moſt radical and moſt univerſal properties of ſimple bodies, bulk, ſhape, motion, or reſt, by the different conventions or coalitions, of which minuteſt portions of matter are made thoſe differing concretions, which chemiſts call their principles. He then makes ſome reflections upon the hypotheſis of alkali and acid; and ſhews, that the ſuppoſition of them is precarious, their offices arbitrary, and the notion of them unſettled; that the taſte is no judge of them, and the hypotheſis of them often needleſs and inſufficient, affording but unſatisfactory ſolutions of phænomena. In a marginal note on the *Preface introductory* in the ſecond edition, he mentions ſome other *Dialogues* concerning *heat*, *fire*, *flame*, &c. which had been ſeen by two ſecretaries of the Royal Society, but were miſſing, with ſome other pieces of his, after the haſty removal of his goods by night in the great fire of *London*. This work was tranſlated into Latin.

In 1662 a grant of the forfeited impropriations in the kingdom of *Ireland* was obtained from the King in Mr. *Boyle*'s name, though without his knowledge; for the application of which to the ſupport of religion and promotion of learning he was greatly ſolicitous, as appears from a letter of his to Dr. *Michael Boyle*, biſhop of *Corke*, dated May the 27th that year[1]; in which he mentions, that he expected from an honeſt gentleman in public employments, and very well verſed in the affairs of that country, an account, "how thoſe impropriations, which are, *ſays he*, within the grant "made me by his Majeſty, are, or are like to be,

[1] Vol. V. p. 243.

"provided

" provided of miniſters and maintenance. And " though the procuring me this account would, " I know, require ſome time; yet the requiſiteneſs " of it to aſſiſt me, how to order myſelf on this " unhappy occaſion, made me unwilling to write to " your lordſhip, till I had received it; and the ad- " journment of the parliament made me hope I " might receive it ſeaſonably enough. But being " ſurpriſed ſince the laſt poſt with the news of the " parliament's being met again, and of the quick " progreſs, that is making in the act for the ſet- " tlement of *Ireland*, the promiſe I made your " lordſhip at our ſeparation forbids me to delay " to ſay ſomething to you about the buſineſs we " then diſcourſed of; but it is now too late at " night, that I muſt not till a fitter opportunity " enlarge upon particulars, but muſt make haſte " to inform your lordſhip, that having, as I told " you I intended, applied myſelf to that excellent " prelate the biſhop of *Lincoln*[a], for his advice on " ſo nice an occaſion, I came upon the whole " matter to this reſult, that the King's grant made " to me having preceded both the grant made in " the act to the church, and even the church's " application to his Majeſty for that grant, I might " juſtly challenge the impropriations mentioned " in my proviſo. . . . . And therefore I would not " have what I intend to do, reflect upon thoſe " perſons of honour, that (though unknown to " me) made uſe of my name to obtain the grant " from the King; ſince in ſuch diſputable caſes, " perſons, that act very differently from one ano- " ther, may yet all ſatisfy their own judgments " and conſciences in their proceedings. But in " regard my intention in general was to apply an " addition of my revenue, if my friends procured

[a] Dr. *Robert Sanderſon.*

" any for me, to good uſes, though, I confeſs, I
" deſigned it rather for the advancement of real
" learning, than to any other purpoſe; yet ſince
" it ſo falls out, that unknown to me it is caſt
" upon impropriations, it is very likely, that by
" the account I expect of the ſtate of them, I
" may ſee cauſe to make the more immediate ſer-
" vice of religion, (by relieving the poor in thoſe
" places, and contributing, if need be, towards the
" maintenance of miniſters there or elſewhere, or
" promoting other good works, as from time to
" time occaſion may require,) the principal of
" theſe good uſes, to which I have thoughts to
" apply about two thirds of what will, *de claro*,
" come to me out of my ſhare of this grant, hop-
" ing alſo, that the other perſons of honour, that
" are concerned in it, will have a care, that the
" impropriations, whoſe revenues are given them,
" be provided with miniſters. And I ſhould poſ-
" ſibly employ the other third part alſo the ſame
" way, but that his Majeſty has been pleaſed, with-
" out my ſeeking, or ſo much as knowledge, to
" appoint me governor to a corporation for the
" propagating of the goſpel among the heathen
" natives in *New England* and other parts of *Ame-*
" *rica*. And this corporation being at great charges
" for neceſſary works, and eſpecially for the tranſ-
" lating and printing of the Bible in the Indian
" tongue, above one half of their revenue is in-
" juriouſly detained from them by a perſon, who
" had ſold it to a corporation erected for the ſame
" purpoſes with ours under the late uſurping
" powers, and now has repoſſeſſed himſelf of his
" land, becauſe thoſe, that he ſold it to, were not
" legally qualified to have a ſale made to them.
" By which means ſo pious a deſign, as is pur-
" ſued by this corporation, is now in danger to
" miſcarry

" miſcarry for want of maintenance; ſo that the
" work being ſo charitable, and I having a pecu-
" liar call to promote it, I think, after having ad-
" viſed with the biſhop of *Lincoln* in the caſe,
" that it becomes me, on ſuch a juncture of cir-
" cumſtances, to apply the other third part, or
" thereabouts, of what the King's grant will yield
" me for ſix or ſeven years at leaſt, to the carry-
" ing on of ſo unqueſtionably good a work; ſo
" that the main benefit I intend to derive from the
" King's bounty is the opportunity of doing ſome
" good with what, if my friends had not obtained
" it, might have been begged by others, who
" would have otherwiſe employed it. And by this,
" I hope, your lordſhip will be confirmed in the
" belief of what I formerly aſſured you of, name-
" ly, that had I known, that any thing was aſked
" for me, whoſe grant would have been prejudicial
" or unwelcome to the church, I ſhould not have
" conſented to have my name made uſe of for a
" much greater matter, than the proviſo is like
" to yield me. And the ſame day your lordſhip
" did me the honour to inform me of the ſtate of
" the caſe, I offered ſome of the parties concerned
" to relinquiſh the grant, though it had already
" paſſed the King and council, ſo I nor my name
" might have nothing to do with it; but one of
" the intereſted parties being too far off to be con-
" ſulted, the proffer was declined. From all
" which, I hope, your lordſhip will do me the
" right to conclude, that I was far from deſigning
" the prejudice of the church; and that though it
" cannot in reaſon be expected, that I ſhould do
" any thing to hinder the other perſons concerned
" in my proviſo to purſue the having it paſſed,
" and to enjoy the benefit of it; yet I do not at
" all deſire, that either your lordſhip, or any other

" perſon

" perſon, that thinks the proviſo may be juſtly " excepted againſt upon the church's behalf, ſhould, " for my ſake, at all abſtain from acting and ſpeak- " ing, as his judgment and conſcience ſhall direct " him. For as my partners are, (and I think not " cauſeleſsly) confident of being able to carry on " in *Ireland* that, which has already paſſed the " ſcrutiny here; ſo, for my part, all I pretend to " by this grant is, to have the power in my own " hands, to ſee, that the proceed of it be carefully " employed to the good uſes, whereto I deſign " it." The biſhop of *Corke* in his anſwer to this letter of Mr. *Boyle*, dated at *Dublin* Aug. 13, 1662, obſerves [t], that with regard to the buſineſs above-mentioned, he was perfectly ſatisfied, that Mr. *Boyle*'s deſign, " (if, *ſays he*, you had any, for I " cannot yet imagine you to be any otherwiſe than " paſſive in the whole matter) in acquiring thoſe " impropriations was charitable and religious; for " you cannot do any thing, that is otherwiſe. I " muſt likewiſe very much applaud your pious " intendments for the advancement of real learn- " ing, and eſpecially for the extenſiveneſs of your " charity towards the poor Heathen natives of " *New England*. But yet I muſt humbly take leave " to acknowledge myſelf unſatisfied, why that ad- " ditional revenue, which his Majeſty deſigned " and promiſed for the better ſupport of the clergy " here, that they may with greater comfort attend " the cures of their ſeveral churches, ſhould be " diverted to any other uſe, though in itſelf it be " generous and handſom, eſpecially when I con- " ſider, how many congregations depend upon the " ſervice of thoſe pariſhes; how deſtitute they " will be of a church to reſort unto; how the poor " people will be compelled to wander through the

[t] Vol. V. p. 652.

" country,

" country, to find out an opportune place for the " performance of their publick duties and devo- " tions, unto God. For although at preſent your " piety provides all that poſſibly you may, to pre- " vent theſe ſad conſequences; yet you know not " how they ſhall be minded, who ſucceed you; " nor are you certain, that thoſe other perſons, " (whoever they be,) that have obtained this grant " under your patronage, will be as inclinable upon " that account as you are. If they be not, (as it " is great odds on your ſide againſt moſt men liv- " ing,) it will not then be unworthy your conſi- " deration, whether ſomething of their fault will " not be chargeable upon you, by whoſe only " means they were enabled to do the prejudice. " As to that advice and reſolve, which was given " you by that moſt excellent prelate, whoſe piety " and learning makes him deſervedly honoured by " all, that have either known or read him, I muſt " neceſſarily believe it was founded on a very great " miſtake. For in caſe the difference be otherwiſe " than it is ſtated in your letter, if that bleſſed " Martyr *Charles* I. did in his life-time ſolemnly " devote all impropriations unto the church, that " ſhould be any way inveſted in him; if his moſt " gracious Majeſty, that now is, ſhould, as an early " evidence of his gratitude to God for his miracu- " lous reſtoration, immediately after his acceſs into " his kingdom, engage himſelf in the like bounty " to this church of *Ireland*; if his Majeſty had not " only promiſed, but actually granted them under " his privy ſignet, before any conceſſion of what " your grant contains was made unto you, (where- " of each particular may, as I ſuppoſe, be made " ſomewhat conſpicuous,) then certainly you will " think it worthy ſome further conſideration, whe- " ther you will inſiſt upon that grant or no."

MR.

Appendix Numb. I. fol. 319. [illegible]

Mr. *Boyle*, in his letter of May 27, 1662, above-cited, mentions his having been appointed by the King governor of the *Corporation for propagating the goſpel in* New England, *and the parts adjacent in* America, and that the revenue of this corporation was injuriouſly detained from them. The caſe was this: in July 1649, there was an ordinance paſſed in the parliament, *for the promoting and propagating of the goſpel of Jeſus Chriſt in* New England, by the erecting a corporation in perpetual ſucceſſion, to be called by the name of *the preſident and ſociety for the propagation of the goſpel in* New England, "to receive and diſpoſe of monies in ſuch manner, as ſhall beſt and principally conduce to the "preaching and propagating the goſpel amongſt "the natives, and for the maintenance of ſchools "and nurſeries of learning for the education of the "children of the natives; for which purpoſe a "general collection was appointed to be made in "and through all the counties, cities, towns, and "pariſhes of *England* and *Wales*, for a charitable "contribution, to be as the foundation of ſo pious "and great an undertaking[u]." With the monies thus collected lands were purchaſed to the value of between five and ſix hundred pounds a year[x], and ſettled in a corporation of citizens of *London* in truſt, *Henry Aſhurſt*, Eſq; being their treaſurer. Upon the reſtoration of King *Charles* II. the corporation being dead in law, colonel *Bedingfield*, a papiſt, who had ſold an eſtate of 322 *l. per ann.*[y],

[u] Account of the Society for propagating the goſpel in foreign parts, eſtabliſhed by the royal charter of King *William* III. p. 4. edit. *London* 1706, in 4to.

[x] Mr. *Daniel Neale*'s hiſtory of *New England*, Vol. I. Chap. VI. p. 263. *who obſerves, that Mr.* Baxter *in his* Life, fol. 290. *is miſtaken in computing that purchaſe at ſeven or eight hundred pounds* per ann.

[y] *Neale, ubi ſupra.*

which

which had been ſettled for the uſes of it, repoſſeſſed himſelf of it, and at the ſame time refuſed to pay back the money, which he had received for it. Mr. *Boyle* therefore uſed his intereſt with the lord chancellor *Clarendon*, to prevent that act of injuſtice; and the corporation being revived in 1661, by an expreſs charter [a], he was made governor of it, and the eſtate, which had been detained by *Bedingfield*, was reſtored to the corporation by the chancellor's decree [a].

IN 1663 the Royal Society being incorporated by King *Charles* II. by letters patents, dated the 22d of April, Mr. *Boyle* was appointed by the charter one of the council of the learned body [b]; and as he had been one of the principal perſons, to whom that Society owed its firſt riſe and progreſs, he continued during the reſt of his life one of its moſt uſeful members.

IN June the ſame year he publiſhed at *Oxford*, in 4to, *Some Conſiderations touching the Uſefulneſs of experimental natural Philoſophy, propoſed in a familiar Diſcourſe to a Friend by way of Invitation to the ſtudy of it.* The *firſt Part* contains five Eſſays: I. Of the Uſefulneſs of experimental Philoſophy, principally as it relates to the mind of man. II. Of the ſame. III. A continuation of the ſame. IV. A requiſite Digreſſion concerning thoſe, that would exclude the Deity from intermeddling with Matter. V. Wherein the Diſcourſe interrupted by the Digreſſion is reſumed and concluded. The *ſecond Part* conſiſts of two ſections; *viz.* Section I.

[a] The copy of the charter is extant among Mr. *Boyle*'s papers, and not being, as far as I can learn, hitherto printed, is inſerted in the *Appendix* to this Life.

[a] Biſhop *Burnet*'s memorandums concerning Mr. *Boyle*'s Life, and Mr. *R. Baxter*'s Funeral Sermon for *Henry Aſhurſt*, Eſq; p. 46.

[b] *Sprat*'s hiſtory of the Royal Society.

of

of the Uſefulneſs to Phyſic, containing five Eſſays, *viz.* 1. Some particulars tending to ſhew its Uſefulneſs to the phyſiological Part: 2. To the pathological part of Phyſic: 3. To the ſemeiotical part of Phyſic: 4. To the hygieinal part of Phyſic: 5. To the therapeutical part of Phyſic. This book was reprinted at *Oxford*, in 4to, the year following. In the advertiſement to the reader Mr. *Boyle* obſerves, that divers parts of this work were ſent to the preſs in 1660, and 1661, as well as in 1663, and that the very laſt Eſſay of it was written ſeveral years before; ſince which time thoſe papers were left, ſometimes in the hands of friends, and ſometimes in diſtant places, where he could not come at them; a circumſtance, which he mentions, that the reader might neither wonder nor blame him, if he ſhould meet with ſome things in them, that had already been publiſhed by others, or were more vulgarly known, than his mentioning them implied; and that particularly a great portion of the *firſt Part* was written about ten or twelve years before, when he was ſcarce above twenty one or twenty two years of age.

His next book was *Experiments and Conſiderations touching colours: firſt occaſionally written, among ſome other Eſſays, to a Friend, and now ſuffered to come abroad as the beginning of an experimental Hiſtory of Colours.* To this were added *A ſhort Account of ſome Obſervations made by Mr.* Boyle *about a Diamond, that ſhines in the dark; firſt incloſed in a Letter written to a Friend, and now, together with it, annexed to the foregoing Treatiſe, upon the ſcore of the affinity between* Light *and* Colours: *and Obſervations made October* 27, 1663, *about Mr.* Clayton's *Diamond, and read before the Royal Society the day following.* This book was printed at *London* 1663, in 8vo, and reprinted there in 1670. It

was

was likewiſe tranſlated into Latin. In this diſcourſe concerning *Colours*, he obſerves, that they may be conſidered either as a quality reſiding in the body, that is ſaid to be coloured, or to modify the light after ſuch or ſuch a manner; or elſe as the light itſelf, which ſo modified ſtrikes upon the organ of ſight, and ſo cauſes that ſenſation, which we call *Colour*; but that this latter is the more proper acceptation of the word *Colour*: that it is not without reaſon, that he aſcribes colour chiefly to the ſuperficial parts of bodies: and that a blind man at *Maeſtricht* in the *Low Countries* could at certain times diſtinguiſh colours by the touch of his fingers. As to particular colours, he tells us, that *whiteneſs* depends upon the roughneſs of the ſurface of the body called white, which gives it innumerable ſmall ſuperficies, which acting like ſo many *ſpecula* in various poſitions, reflect the rays of light, that fall on them, not towards one another, but externally towards the ſpectator: that blackneſs reſults from a peculiar kind of texture of the ſuperficial particles of a body, by which it damps the light, which falls on it, ſo that very little is reflected to the eye. He gives us likewiſe ſeveral experiments, which ſhew, that both black and white may be mechanically produced and deſtroyed.

He gave the public alſo the ſame year *Some Conſiderations touching the ſtyle of the holy Scriptures, extracted from ſeveral Parts of a Diſcourſe concerning divers particulars belonging to the Bible, written divers years ſince to a Friend*: London, in 8vo, and reprinted there in 1675 in the ſame form. A Latin tranſlation of it was printed at *Oxford* in 1665. The *Diſcourſe*, from which theſe *Conſiderations* were extracted, was the *Eſſay on Scripture*, of which I have given ſome account above; and it was publiſhed by Mr. (afterwards Sir) *Peter Pett*, attorney

general for *Ireland*, to whom the letter of Mr. *Boyle* prefixed to it is addreſſed, and who was meant by the letters *P. P. A. G. F. J.* [c]. It was upon occaſion of theſe *Conſiderations*, that Mr. *Boyle* received from an anonymous hand the following letter.

October 26, 1665.

" Heavenly *Aretaphilus*,

" A LITTLE book, under the title of " *Conſiderations on the Style of the holy Scrip-* " *tures*, coming to my hands, the value your writ- " ings merit from all men, engaged me in its peru- " ſal; the ſympathy of which contents with my " genius makes me challenge ſo near a relation to " the author, as to ſtyle myſelf his admirer. I " have obſerved not only the inſignificant tauto- " logy, the unpleaſant circumſtances, the inconſi- " derableneſs of the deſign, and the emptineſs of " the end of moſt books, which croud daily to the " preſs, wreſting and cenſuring the ſcriptures; but " alſo the danger of ſeveral tenents, which the " authors would make ſeem agreeable to the ſcrip- " tures, merely to proſelyte men to their opinion, " who are apt to be in love with their rhetoric, " and are thereby ſeduced to their own damnation, " that I almoſt fear to read any book with the " title of holy. I preſume, if men did conſider " the weight of that text, *Whoſo adds, or diminiſh-* " *eth*, &c. there would not appear ſo many com- " ments and large volumes in public, to confound " and miſlead the multitude, who are apt enough " to ſchiſmatize, where they have a patron, *viz.* " *Paul*, or *Apollos*, or *Cephas*, &c. and to turn to

[c] See Sir *Peter Pett*'s dedication to lord *Altham* before the Memoirs of the right honourable *Arthur* earl of *Angleſey*, edit: *London*, 1693, in 8vo:

the

" the crooked way of deſtruction, when that lit-
" tle book, which affords matter for thoſe great
" volumes, and points to the ſtreight path of ſal-
" vation, is neglected and ſlighted. But *nitimur in*
" *vetitum*, we are too prone to forbidden cuſtoms;
" yet I hope this *Enchiridion* may prove a remedy
" or antidote to ſome againſt the publick infection.
" In the mean time I rejoice, that there is one,
" who has that eſteem for ſo worthy and profita-
" ble a book as the Bible, without conſorting with
" men's pretended helps and additions, conclud-
" ing with St. *Paul*, that it is *alone able to make the* 2. Tim. 3. 17
" *man of God perfect*. And now pardon this trou-
" ble, and accept it, till God grant me an oppor-
" tunity of a nearer conference, that I may im-
" prove my talent of knowledge, and preſs to-
" wards the mark of all true Chriſtians.

" Yours.

" *To the honourable Mr.* Robert
" Boyle, *at lady* Ranelagh's *in*
" Pall-Mall, London.

IN 1664 Mr. *Boyle* was elected into the company of the Royal Mines[a]; and in September that year received the following letter from *John Winthrop*, Eſq; governor of *Connecticut* and *New Haven* in *New England*:

" Honourable Sir,

" A BARK of this place meeting with one
" of the frigates at ſea near the port of their
" arrival, I had thereby the favour of your ho-
" nour's letter, and afterwards met that gentle-

[a] Mr. *Oldenburg's* letter to Mr. *Boyle*, dated at *London* December 10, 1664. Vol. V. p. 328.

" man Dr. *Sackvill*, recommended therein, at *Gra-*
" *veſant*, a ſmall town upon the weſt end of *Long*
" *Iſland*, and had there ſome acquaintance with
" him. But that being a time and place of much
" action, and my ſtay no longer than that the
" fort and town at *Manhatos* was reduced to his
" Majeſty's obedience, I could not then have much
" conference with him. He abideth yet at that
" place, (now called *New York*) which is above a
" hundred miles from my preſent habitation; but
" I hope there may be better opportunities, and I
" ſhall be ready to do him any ſervice. After the
" reducing of that place, and that I ſaw it in the
" peaceable poſſeſſion of his Majeſty's honourable
" commiſſioners, I came back towards *Hartford* to
" have met the commiſſioners of the colonies
" there, it being their uſual appointed time, and
" that the place for this year; but being taken
" with a fever at *New Haven* in the way homeward,
" I was diſappointed of being with them at that
" time; but underſtanding after from thoſe, that
" ſupplied in my abſence there, that there was a
" propoſition in your honour's letter to them for
" their advice, how a great ſtock might be em-
" ployed for the furthering that good work among
" the Indians, although that queſtion I ſuppoſe
" hath been anſwered by the commiſſioners then
" met; yet I am bold to add this motion, that
" your honour would pleaſe to cauſe that paper,
" which I left with the honourable corporation in
" *England*, to be reviewed. I ſuppoſe it doth give
" an hint of a foundation of an uſeful employ of
" a large ſtock, even to thoſe good ends the cor-
" poration principally aim at. I am very deeply
" obliged to your honour for multiplied favours,
" and in particular this of late received, of the
" good advice, and intimations, and informations,

" in

" in reference to thoſe matters in your honour's " letter. I do endeavour greatly to attend your " commands, and to diſpoſe all people to that " duty and obſervance towards thoſe honourable " commiſſioners ſent by his Majeſty, as may teſtify " their true loyalty and affection to his Majeſty, " from whom they come, and I hope for the good " of theſe poor plantations. I ſhall not give your " honour further trouble at preſent, than that you " will pleaſe to read, that I am in ſincerity,

Hartford in *New England*, Sept. 25, 1664. " Honoured Sir,

" your moſt faithful

" humble ſervant,

" J. WINTHROP.

THE year following Mr. *Boyle* gave the public his *Occaſional Reflections upon ſeveral Subjects: whereto is premiſed a Diſcourſe about ſuch kind of Thoughts*: London 1665, in 8vo, reprinted in 1669, in 8vo, and tranſlated into Latin, but never publiſhed in that language. This piece was drawn up when he was very young, as appears from the following paſſage in a letter of his to his ſiſter the lady *Ranelagh*; *Nor ſhall I diſobey your threatned order for looking you out a miſlaid ſcribble I drew up* in my infancy *concerning occaſional Reflections*. And this conſideration, added to that of the cuſtom of the age, in which the imagination was more indulged upon important ſubjects, than the ſeverity of a true taſte of writing will admit, may ſerve to apologiſe for this treatiſe, againſt the inſult upon it in Dr. *Swift*'s *pious Meditation on a Broom Staff*, who has certainly not ſhewn in that piece a juſt regard to the intereſts of religion, any

more than to the character of Mr. *Boyle*, by allowing himſelf to treat ſuch ſubjects, and ſo excellent a perſon, with the moſt licentious buffoonry. The ſame year he publiſhed ſome ſmall pieces in the *Philoſophical Tranſactions*, viz. *An Account of a very monſtrous Calf*, N°. I. p. 10. together with *an Obſervation* imparted to him by Mr. *David Thomas* touching ſome particulars further conſiderable in that monſter, N°. II. p. 11. *Obſervables upon a monſtrous Head of a Colt*, N°. V. p. 85. *Some anatomical Obſervations of Milk found in Veins inſtead of Blood, and of Graſs found in the Wind-pipes of ſome Animals*, N°. VI. p. 100. *Of a place in* England, *where, without petrifying Water, Wood is turned into Stone*, Ibid. p. 101. *A further Account of an Obſervation abovementioned about white Blood*, Ibid. p. 117. But a more important work was that printed at *London* 1665, in 8vo, under the title of *New Experiments and Obſervations touching Cold; or an experimental Hiſtory of Cold begun. To which are added, an Examen of Antiperiſtaſis, and an Examen of Mr.* Hobbes's *Doctrine about Cold. Whereunto is annexed an Account of Freezing* [c] *brought into the Royal Society by the learned Dr.* C. Merret, *a fellow of it. Together with an Appendix containing ſome promiſcuous Experiments and Obſervations relating to the precedent Hiſtory of Cold.* The ſecond edition was printed at *London* 1683, in 4to. In this work he gives an account of the defectiveneſs of common weather-glaſſes, the advantages of the new hermetical thermometers, and an enquiry concerning the cauſe of the condenſation of the air, and aſcent of water by cold in the ordinary weather-wiſers. But theſe are only preliminaries; for the main diſcourſe preſents us with an account, what bodies are capable of freezing others, and what of

[c] Made in December and January 1662.

a L: Orrery's Remarks on Dean Swift: 1742. being Pomfret Edition: pa: 93.

being frozen: the ways to eſtimate the degrees of coldneſs: how to meaſure the intenſeneſs of cold produced by art beyond that employed in ordinary freezing: in what proportion water will be made to ſhrink by ſnow and ſalt: how to meaſure the change produced in water between the greateſt heat of ſummer, the firſt degree of winter-cold, and the higheſt of art: how to diſcover the different degrees of coldneſs in different regions: a way of freezing without danger to the veſſel: what may be the effects of cold, as to the preſerving or deſtroying the texture of bodies: whether ſpecific virtues of plants are loſt through congelation, and then thawing: whether electrical and magnetic virtues are altered by cold: the expanſion and contraction of bodies by freezing: how they are cauſed, and how their quantity is to be meaſured: the ſtrength of water freezing, and an enquiry into the cauſe of that prodigious force: the ſphere of activity of cold: how far the froſt deſcends in earth and water: an experiment ſhewing, whether cold can act through an hot medium: a way of accounting the ſolidity of ice, and the ſtrength of the adheſion of its parts: what liquors are its quickeſt diſſolvents; and an experiment of heating a cold liquor with ice. He afterwards confutes the vulgar notion of *Anteperiſtaſis*, and Mr. *Hobbes*'s Doctrine of Cold; and obſerves, that though he will not undertake to prove the nature of cold to be privative, yet he thinks it eaſy to ſhew, that the arguments produced for its being poſitive are not concluſive.

His excellent character in all reſpects had gained him ſo high an intereſt with the King, that about Auguſt the ſame year 1665, he was nominated to the provoſtſhip of *Eton* college, then vacant by the death of Dr. *John Meredith*, a poſt of great

honour as well as profit. However he declined accepting it, as well becauſe he was probably apprehenſive, that the courſe of his ſtudies, to which he had ſo many years devoted himſelf, might receive ſome interruption from the duties of that poſt, as on account of his inſuperable diſinclination to entering into holy orders, which is thought neceſſary to that office[f]. But whatever other reaſons might concur with this laſt, to determine his refuſal of the provoſtſhip, the fact of his nomination to it is evident from a letter of Mr. *Oldenburg* to him, dated at *London* Auguſt the 29th, 1665[g], in which he ſays: "If he [Dr. *John Beale*] be not miſinformed by one of his Majeſty's chaplains, who now waits at *Saliſbury*[h], and laſt week gave him a viſit, you, Sir, are nominated provoſt of *Eton*. Which if ſo, our ſaid friend hopes, and ſo do I, you will not refuſe it, conſidering, that that place hath many opportunities of influence on the univerſities, and is able to oblige many; which ſtrengthens our hope, that you will accept of it, eſpecially ſince it is, as I underſtand, no burthen and much accommodation, it being alſo but half a day's journey from thence to *London*, and not much more to *Oxford*." And this is confirmed by a letter of Dr. *Beale* from *Yeovill*, Sept. 7, 1665[i], which begins thus: *I wiſh this may find you in* Eton *college, and well ſettled there.* On the 8th of that month we find him created doctor of phyſic in that univerſity[k].

[f] See Dr. *John Fell*'s Life of Dr. *Richard Alleſtry*, prefixed to the Sermons of the latter, printed at *Oxford* 1684, in folio.

[g] Vol. V. p. 334.

[h] Where the King then was, on account of the plague's raging at *London*.

[i] Vol. V. p. 469.

[k] *Wood, Faſti Oxon*, Vol. II.

In

IN February following Mr. *Henry Stubbe*, a phyſician at *Stratford* upon *Avon* in *Warwickſhire*, addreſſed a letter to Mr. *Boyle* upon the ſubject of the famous Mr. *Valentine Greatraks*, the Iriſh Stroker. This extraordinary perſon was ſon of *William Greatraks* of *Affane* in the county of *Waterford*, Eſq; by a daughter of Sir *Edward Harris*, Knt. one of the juſtices of the King's bench in *Ireland* in the reign of King *Charles* I. He was born at *Affane* on the 14th of February 1628, and educated at the free-ſchool at *Liſmore*, where he continued till he was thirteen years of age, and was deſigned the year following for the college of *Dublin*; but the rebellion breaking out in that nation, was obliged, with his mother and ſeveral other ſmall children, to fly for refuge into *England*, where they were relieved by the favour of his uncle Mr. *Edward Harris*, after whoſe death, his mother, for his further progreſs in literature, committed him to the care of Mr. *John Daniel Getſeus*, a German, who was miniſter of *Stock Gabriel* in the county of *Devon*, with whom he ſpent ſome years in ſtudying humanity and divinity. After five or ſix years abſence from his native country he returned thither, but found it in a moſt miſerable ſtate; which made him retire to the caſtle of *Caperquin, where I ſpent*, ſays he [m], *a year's time in contemplation, and ſaw ſo much of the madneſs and wickedneſs of the world, that my life became a burthen to me, and my ſoul was as weary of this habitation of clay, as ever the gally-ſlave was of the oar, which brought my life even to the threſhold of death, ſo that my legs had hardly ſtrength to carry my enfeebled*

[l] A brief account of Mr. *Valentine Greatraks* and divers of the ſtrange cures by him lately performed, p. 15. Edit. *London* 1666, in 4to.

[m] Ibid. p. 17.

body about. In the year 1649 he became lieutenant in the regiment of *Roger* lord *Broghill*, afterwards earl of *Orrery*, then acting in *Munſter* againſt the Iriſh and Papiſts; and in 1656 a great part of the army there being diſbanded, and he among the reſt, he retired to his eſtate at *Affane*, and was ſoon after appointed clerk of the peace for the county of *Corke*, and regiſter for tranſplantation, and juſtice of the peace [n]. About the year 1662, *I had an impulſe*, ſays he [o], *or a ſtrange perſuaſion in my own mind, (of which I am not able to give any rational account to another) which did very frequently ſuggeſt to me, that there was beſtowed on me the gift of curing the king's evil; which, for the extraordinarineſs of it, I thought fit to conceal for ſome time; but at length I communicated this to my wife, and told her, that I did verily believe, that God had given me the bleſſing of curing the king's evil; for whether I were in private or public, ſleeping or waking, ſtill I had the ſame impulſe. But her reply to me was, that ſhe conceived this was a ſtrange imagination; but to prove the contrary, a few days after there was one* William Maher *of* Salterbridge *in the pariſh of* Liſmore, *that brought his ſon* William Maher *to my houſe, deſiring my wife to cure him, who was a perſon ready to afford her charity to her neighbours, according to her ſmall ſkill in chirurgery. On which my wife told me, there was one, that had the king's evil very grievouſly in the eyes, cheek, and throat. Whereupon I told her, that ſhe ſhould now ſee, whether this were a bare fancy or imagination, as ſhe thought it, or the dictates of God's ſpirit on my heart; and thereupon I laid my hands on the places affected, and prayed to God for Jeſus ſake to heal him; and then I bid the parent two or three days afterwards to bring the child to me again, which accordingly he did, and then I ſaw the eye was almoſt*

[n] Ibid. p. 18, 19. [o] Ibid. p. 22.

quite

quite whole, and the node, which was almoſt as big as a pullet's egg, was ſuppurated, and the throat ſtrangely amended, and, to be brief, (to God's glory I ſpeak it) within a month diſcharged itſelf quite, and was perfectly healed, and ſo continues, God be praiſed. His next cure was of *Margaret Mac-ſhane* of *Ballinecly* of the pariſh of *Liſmore*, who had been afflicted with the evil above ſeven years in a much more violent degree; and ſoon after his fame encreaſing, he cured the ſame diſeaſe in many other perſons for three years, not meddling with any other diſtempers, till about the end of thoſe three years, the ague growing epidemical, he found as formerly, that there was beſtowed on him the gift of curing that diſeaſe [p]. "Within ſome ſmall "time after this, *continues he* [q], God was pleaſed "by the ſame or the like impulſe to diſcover unto "me, that he had given me the gift of healing; "which the morning following I told my brother "and wife, but neither of them could be prevailed "with to believe it, though for my own part I "had a full aſſurance thereof within me. This "impulſe I had the ſunday after Eaſter-day, the "2d of April 1665 early in the morning; and "the wedneſday enſuing I went to cornet *Dean*'s "(about ſome occaſions I had with him) to *Liſ-*"*more*, where there came into his houſe to me a "poor man, that with a violent pain in his loins "and flank went almoſt double, and had alſo a "moſt grievous ulcerous leg very black, wherein "were five ulcers; who deſired me for God's ſake, "that I would lay my hands on him, and do him "what good I could. [But by the way take no-"tice, that as God gave me the ſeveral gifts from "time to time, he always ſent patients, that ap-"plied themſelves to me, for I never ſought after

[p] Ibid. p. 22—25. [q] Ibid. p. 25.

"any

" any from the firſt moment to this very inſtant.]
" Whereupon I put my hand on his loins and
" flank, and immediately run the pains out of
" him, ſo that he was releaſed, and could ſtand
" upright without the leaſt trouble. Then I put
" my hand on his ulcerous leg, (which the chirur-
" geons, after they had ſhewed all their ſkill on
" him, told him it was periſhed at the bone, and
" ſo muſt be cut off, but that he wanted 3*l.* to
" give one of them for his pains, as he informed
" me,) which forthwith changed colour, and be-
" came red, and three of the five ulcers cloſed up,
" and the reſt within a few hours afterwards; ſo
" that he went out well, that could hardly by
" the help of his ſtaff crawl in, and within two
" days afterwards he fell to his labour, being a
" maſon by trade, and ſo continued ſeveral months
" afterwards to my knowledge, and to this inſtant,
" for ought I know." The thurſday following he cured col. *Phaire* of *Cahirmony* in the county of *Corke* of an ague, and afterwards many other perſons of different diſtempers by ſtroking[r]; ſo that there was a reſort to him from all parts. But being cited into the biſhop's court at *Liſmore*, and not producing a licenſe for practiſing, he was prohibited from laying his hands on any perſon for the future, but ſtill continued to do ſo till January 1665-6, when he came to *England* at the requeſt of the earl of *Orrery*, in order to cure the lady of the lord viſcount *Conway* of *Ragley* in *Warwickſhire*, who had for many years laboured under a moſt violent head-ach. He ſtaid at *Ragley* three weeks or a month; and though he failed in his endeavours to relieve that lady, he cured vaſt numbers of people in thoſe parts, and at *Worceſter*. He was then by his Majeſty's order ſent for to *White-*

[r] Ibid. p. 25—28.

hall,

hall, and continued ſome time in *London*, performing many remarkable cures there in the preſence of perſons eminent for their ſkill and integrity [s].

MR. *Stubbe*, who was witneſs to ſeveral of his cures in *Warwickſhire*, publiſhed therefore at *Oxford* in 4to, a piece, entitled, *The miraculous Conformiſt: or, An Account of ſeveral marvellous cures performed by the ſtroking of the hands of Mr.* Valentine Greatarick; *with a phyſical Diſcourſe thereupon, in a Letter to the honourable* Robert Boyle, *Eſq; With a Letter relating to ſome other of his miraculous Cures, atteſted by* E. Foxcroft, *M. A. and Fellow of* King's *college in* Cambridge. Mr. *Stubbe*'s letter to Mr. *Boyle* is dated at *Stratford* upon *Avon*, February 18, 1665-6, and begins thus: "Since the beſt and moſt agreeable retribution I "can make you for the honour you do me in your "remembrances, and all your other ſignal favours, "is but to gratify your curioſity with any remarka- "ble intelligence, that may advance either phyſic "or philoſophy, I ſhall endeavour to be as gene- "rous in my acknowledgments to you, as you "have always been in obliging me. Since my laſt "unto you, my lord *Conway* did me the honour "particularly to invite me to his houſe and ac- "quaintance, giving me withal a fair opportunity "of converſing with Mr. *Greatarick*, and behold- "ing ſeveral of thoſe performances, the report "whereof, as it gives juſt cauſes of aſtoniſhment "to you, that are more remote, ſo the effects fill "with admiration the moſt learned or ſuſpicious "beholders. In truth they are ſuch, that he is "not at all obliged to the ignorant for the eſteem "he hath acquired, nor is it poſſible for the moſt "tender or ſuperſtitious and cenſorious zealots to "deſtroy his repute. He is a man of a graceful

[s] Ibid. p. 20—40.

"perſonage

" perſonage and preſence, and, if my phantaſy " betrayed not my judgment, I obſerved in his " eyes and mein a vivacity and ſprightlineſs, that " is nothing common. As far as I could inform " myſelf by a long and private diſcourſe, he is a " man of a very good life, of tender and charita- " ble principles, as extenſive as the effects of his " goodneſs are. He profeſſeth conforming unto " the doctrine and diſcipline of the church of " *England*, yet without that cenſoriouſneſs, where- " by ſome ſignalize themſelves. His thoughts " concerning himſelf are modeſt and humble; and " he preſumes ſo well of others, that even in ſome " colourable circumſtances he regulates his appre- " henſions by the revealed mercies of God, and " not the ſeverity of men. In fine, without any " prejudice to this age be it ſaid, he ſeemed to " me, by his faith and by his charitableneſs, to " include in his ſoul ſome grains of the golden " age, and to be a relick of thoſe times, when " piety and miracles were ſincere." The poſition, which Mr. *Stubbe* maintains in this letter, is[t], that *God had beſtowed upon Mr.* Greatraks *a peculiar temperament, or compoſed his body of ſome particular ferments, the effluvia whereof being introduced ſometimes by a light, ſometimes by a violent friction, ſhould reſtore the temperament of the debilitated parts, reinvigorate the blood, and diſſipate all heterogeneous ferments out of the bodies of the deceaſed, by the eyes, noſe, mouth, hand, and feet.* He then endeavours to explain the nature and manner of Mr. *Greatraks*'s working upon his patients for their cure.

But ſome paſſages in this letter of Mr. *Stubbe* giving offence to Mr. *Boyle*, the latter wrote, immediately upon the receipt of it, animadverſions upon it, in a letter to him, which having never been

[t] P. 10, 11.

yet

yet publiſhed, deſerves a place here from the original in his own hand-writing.

March 9, 1665-6.

" SIR,

" IT was ſo late yeſternight before I received " your account of Mr. *Greatraks*'s ſtupendous " performances, that I had much ado to run it " over before I went to bed; and this morning " being to take care of ſome little affairs in order " to a remove, that I am to make in the after- " noon for ſome days, I am obliged to anſwer " your letter in as much haſte as you tell me you " writ it in; which intimation will, I hope, excuſe " me to you for my not taking a ſolemn notice " of thoſe ſuperfluous acknowledgments you are " pleaſed to begin with, for ſervices, that are " not conſiderable enough to deſerve or expect a " public retribution, having been but ſuch, as a " leſs intereſt in the Muſes than yours would have " entitled you to from one, that is ſo much their " ſervant as I.

" To begin then, I muſt confeſs to you, that I " was ſomewhat ſurprized to find this epiſtle of " yours brought me from the preſs, before I had " ſeen it any other way; and it is no ſmall trouble " to me, both upon your ſcore and my own, that " I did not ſee the manuſcript before it came " abroad. For if I had ſeaſonably ſeen what you " wrote about miracles, I ſhould freely have diſ- " ſuaded you from publickly addreſſing to me, " what I cannot but much diſſent from; and per- " haps I ſhould have been able to prevail with you " to omit all that part of your epiſtle. For be- " ſides that ſince you take notice [*] yourſelf of the " prejudice your former meddling with theological

[*] Page 25.

" matters

" matters has done you, you can ſcarce doubt,
" but that it has made many perſons indiſpoſed
" to put the beſt conſtructions upon what you
" write; beſides this, I ſay, I confeſs I think
" you might have ſpared ſo much pains as you
" take in the former part of your letter, to ſhow,
" that Mr. *Greatraks*'s gift may be miraculous,
" ſince the latter part of it is employed to make
" out what he performs by natural means. For
" my part, though I be very backward to believe
" any ſtrange thing in particular, though but
" purely natural, unleſs the teſtimonies, that re-
" commend it, be proportionable to the extraor-
" dinarineſs of the thing propoſed; yet I remem-
" ber not, that I have hitherto met with (no more
" than you have done) any, at leaſt any cogent
" proof, that miracles were to ceaſe with the age
" of the apoſtles; and not only the excellent [z] *Gro-*
" *tius*, but *Tertullian*, *Juſtin Martyr*, *Cyprian*, and
" other ancients tell us, that the power of eject-
" ing devils out of poſſeſſed perſons laſted long
" after that, and was not unfrequent in the Chri-
" ſtian church. And therefore if thoſe relations of
" Mr. *Greatraks*'s cures, that I have not yet ſeen,
" ſhall convince me, I ſhall not ſcruple, ſince his
" belief and life give me no juſt ſuſpicions, to ac-
" knowledge my conviction, and to rejoice in the
" appearing of a proteſtant, that is enabled and
" forward to do good in ſuch a way, eſpecially
" in an age, where ſo many do take upon them
" to deride all that is ſupernatural; and, whilſt
" they loudly cry up reaſon, make no better uſe
" of it than to employ it, firſt to depoſe faith,
" and then to ſerve their paſſions and intereſts.
" But by what hitherto appears to me of Mr.
" *Greatraks*'s cures, I muſt take leave to think,

[z] In his annotations on the 16th of St. *Mark*.

" that

" that either they are not real miracles; or, if they
" have any thing in them of a ſupernatural gift,
" it is ſo far ſhort of the gifts of our Saviour
" Chriſt and his apoſtles, that I preſume your
" friends will think, that if it were not the effect
" of your haſte, it was rather to ſhew your wit
" than declare your opinion, that you ſeem to
" make a parity between them. And for my part
" I ſhould in that caſe, reflecting upon the paſſage
" you cite, that *there are differences of adminiſtra-* 1 Cor. 12:5.
" *tions, but the ſame Lord*, think it more fit to look
" upon this gift of Mr. *Greatraks*, as a diſtinct and
" inferior kind, than degrade the unqueſtionable
" miraculous gifts of the apoſtles, to depreſs them
" to the ſame level with his. For whether or no
" it may queſtion the truth of his gifts being mi-
" raculous, yet certainly it will leſſen the degree
" of it, that there are many diſeaſes, which he
" will not ſo much as meddle with; that there are
" others, which he attempts to cure, but cannot;
" that there are others, wherein the good he does
" is not laſting, ſo that his patients are rather re-
" lieved than recovered; and that alſo there are
" others, wherein ſo durable a contact and fric-
" tion is requiſite, as makes a great reſemblance
" betwixt the operations of his hand, and the
" actions of phyſical agents. As to what you ſay
" about *Trophimus*, whom St. *Paul* left ſick at
" *Miletus*, and your ſuppoſition, that he may hence
" have left many ſo elſewhere; the latter part of
" it, if it be taken in a ſenſe pertinent to the pre-
" ſent caſe, is precarious; and as to the former,
" it concludes not, that St. *Paul* could not cure
" him, unleſs you can make it appear, that he en-
" deavoured it, as you confeſs Mr. *Greatraks* did
" to cure the excellent lady *Conway* and others.
" What you ſay, that you believe, that there

" wanred

" wanted not at *Corinth* thoſe, that had the gift
" of healing, nor an effectual anointing with oil;
" yet did the miſdemeanors of ſome draw upon
" ſeveral of them *irrecoverable* (a main circum-
" ſtance, which I read not in the text) ſickneſs and
" death, is only affirmed. But if it were granted,
" that perſons ſo qualified were in that church, yet
" it will not follow, that they were unable to cure
" thoſe that died, unleſs you make it out, that
" they endeavoured it. For, to note this once
" for all ſuch caſes, there is no juſt cauſe to ſup-
" poſe, that God did ſo vouchſafe the gift of mi-
" racles to all, that in thoſe times had it, as that
" it was to be exerted on all occaſions; but that
" he, who gave it, did likewiſe by ſome way or
" other ſignify to them, when it was fit for his
" glory (for whoſe ſervice, and not their own
" or their friends outward advantages they were
" intruſted with it) that their miraculous endow-
" ments ſhould be exerciſed. And to argue from
" their not performing what it appears not that
" they did attempt, to their diſability to perform
" what they attempted, will be inconſequent. St.
" *Peter* was able, when it was requiſite, to ſtrike
" *Ananias* and *Sapphira* with ſudden death, and
" St. *Paul* to ſtrike *Elymas* with blindneſs; yet
" theſe apoſtles never made uſe of this fatal power
" for their own or their friends defence, when
" they ſuffered thoſe rude violences, from which
" the exerciſe of it would in all probability have
" protected them. And our Saviour himſelf,
" though he could turn water into wine (as at the
" wedding in *Cana* of *Galilee*,) yet we read not,
" that ever he thought fit to do it but once; nor
" can it be well argued from his ſending his diſ-
" ciples to buy loaves, that he was not able mira-
" culouſly to multiply bread, or feed a greater

" number than his ordinary retinue by extraor-
" dinary means. As to what you ſay, that there
" were ſome diſeaſes, that the diſciples could not
" cure; I remember not any ſuch thing in the
" goſpel, unleſs you mean, as I ſuppoſe you may,
" the youth mentioned in the 17th of *Matthew*:
" but he, the ſtory informs us, was *poſſeſſed with*
" *the devil*; of which poſſeſſion the bodily diſtem-
" per (whatever that were) was but an effect, and
" therefore in the beloved phyſician's goſpel, both
" the paroxyſm is deſcribed by *a ſpirit taketh him*,
" &c.[y] and *the devil threw him down and tare*
" *him*[z]; and in the narrative of the cure it is
" ſaid, that *Jeſus rebuked the unclean ſpirit*, which
" in St. *Matthew* is called *the devil*; and is ſaid *to*
" *depart out of him*[a]. And as to that part of
" this ſtory in the goſpels, that relates to the
" *caſting out of the devil*, I ſhall not ſpend time
" to diſcourſe upon it, nor to enquire what was
" the extent and conditions of the power Chriſt
" gave his diſciples, whilſt they were, as his uſual
" train, in their attendance upon himſelf; yet it
" plainly appears by their divine maſter's rebuking
" them in the forecited chapter of St. *Matthew*
" for their unbelief, as that, which alone had
" hindered the ejection of the evil ſpirit, that it
" was not want of power, but their culpable ne-
" glecting to uſe the proper means, that left the
" devil unejected. But when they were ſent forth
" and commiſſioned by Chriſt, not only we never
" read, that they attempted a cure, which they
" could not effect, but their performances were
" divers of them of a much higher nature than
" Mr. *Greatraks*'s. For not only *Peter* and *John*
" cured inſtantly a man, that had been lame from
" his mother's womb; *Peter* cured in a trice at

[y] Luke ix. 39. [z] V. 42. [a] Chap. xvii. 18.

" *Lydda* one, whom the palſy had kept bed-rid
" eight years together; *Paul* in the ſame manner
" at *Lyſtra* made one leap and walk, that had
" been a cripple from his mother's womb; but
" the ſame apoſtle had ſo exuberant and diffuſive
" a power of chaſing, not only diſeaſes, but devils,
" that he did it at a diſtance by the intervention
" of handkerchiefs and aprons [b], that were brought
" from his body to the ſick or poſſeſſed. To
" which I ſhould add the cures intimated to be
" wrought by St. *Peter*'s ſhadow, if I did not
" conſider, that it may be ſaid, that to come ſo
" near as to have that paſs over them, was to
" come within the atmoſphere (if I may ſo call it)
" which the effluvia of his body made miraculouſly
" ſanative. To enumerate all the other effects of
" the diſciple's ſupernatural gifts would be to tran-
" ſcribe a good part of the Acts of the Apoſtles.
" And if I could imagine, that any diſcerning
" men were in danger of thinking, that becauſe
" you have made it plauſible, that ſome of your
" *Thaumaturgus*'s cures are performed by an ἰδιοσυν-
" κρασία, or ſome kind of complexional efficacy,
" I ſhould add, that I think ſuch a ſuſpicion ex-
" ceeding ill grounded, becauſe there are divers
" phænomena in the miracles of our Saviour and
" his apoſtles, that do not at all agree with ſo
" injurious an hypotheſis as that would be. For,
" to repeat nothing of what I have ſaid already,
" our Saviour could communicate the power of
" working miracles to others at his pleaſure,
" (which I think you do not believe Mr. *Greatraks*
" can do to you) as in the caſe of the ſeventy diſ-
" ciples; and that many years after his death, as
" in the caſe of St. *Paul*; divers of his miracles
" were done on abſent perſons, as that on the Cen-

[b] Acts xix. 12.

" turion's

" turion's dying ſervant and others. The mute
" fiſhes obeyed him, and that ſo ſtrangely, that
" being at a diſtance one of them brought St. *Pe-*
" *ter*, not only himſelf, but a determinate piece
" of money. His power reached not only to liv-
" ing creatures, but inanimate ones, as the ſea
" and the wind; the former of which ſupported
" him when he walked on it, and both the for-
" mer and the latter obeyed him. His power,
" and that of his apoſtles, (which will not, I ſup-
" poſe, be aſcribed to a peculiar temperament)
" reached not only to the curing of the ſick, but
" the raiſing of the dead, (which if the devil could
" do, he would have far more followers than now
" he has, though they be but too many) and di-
" vers of the apoſtles cures were done without
" any contact at all but barely by their word; by
" which alſo they could do harm as well as good,
" and bring diſeaſes and death as well as chaſe
" them, which will not, I preſume, be aſcribed
" to an exuberance of health, (or *pluſquam perfect*
" tincture, as the chemiſts ſpeak.) Beſides that,
" we may well be induced to believe, that even
" thoſe cures, wherein they did touch the ſick, were
" miraculous, both by other reaſons, that may be
" drawn from what has been already ſaid, and by
" theſe two. The one, that there is no ground
" to believe, that ſo many differing and unallied
" perſons in one place, and at one time, ſhould
" have that ſanative ἰδιοσυγκρασία, of which many
" ages have produced us ſo few unqueſtionable
" inſtances, if any other than what your *Thauma-*
" *turgus*, ſuppoſing his ſuch, affords; for the teſti-
" monies you cite of *Rodericus a Caſtro* are not
" cogent, eſpecially conſidering his religion and
" that of his country; and his *creduntur* is an ex-
" preſſion, that rather argues his diffidence than

 " belief.

" belief. And the ſecond, that the apoſtles and
" their contemporary workers of miracles, who
" profeſſed themſelves ſent by God to promulgate
" a new doctrine, had other indowments, that
" were confeſſedly miraculous, (and therefore need-
" ed not a complexional phyſical power of heal-
" ing) as is evident in the gift of tongues ſo il-
" luſtriouſly poured out on the apoſtles at the feaſt
" of Pentecoſt. And to this ſo much more to
" the ſame purpoſe might be added, that though
" I have given ſome proof of my not being
" afraid to propoſe paradoxes, if I think them
" truths, yet I ſhall clearly profeſs to you, that
" as much as I aſcribe to the Corpuſcularian phi-
" loſophy, (both in my other tracts, and profeſſed-
" ly in a new one, that this week comes out in fa-
" vour of it,) I am far from believing, that any
" mechanical or phyſical hypotheſis will make out
" thoſe ſupernatural phænomena, without having
" a recourſe to the miraculous interpoſition of
" God. And when I had the curioſity to con-
" ſider the grand opinions, that are entertained
" among men about religion in general, I have
" long looked upon thoſe enemies to Chriſtianity
" as none of the warieſt and formidableſt, that
" granting the truth of the hiſtorical part of the
" new teſtament, (which relates to miracles) have
" gone about to give an account of it by cœleſtial
" influences, or natural, (though peculiar) com-
" plexions, or ſuch conceits, which have quite loſt
" them, in my thoughts, the title of knowing
" naturaliſts. But I muſt not forget, that the
" opinion I have been oppoſing may poſſibly be
" diſclaimed as well by you as me, though I wiſh
" ſome readers do you not the diſcourteſy to take
" a riſe from your epiſtle to maintain it. And
" by this time I preſume you expect, that I ſhould
" ſay

" ſay ſomething to the hiſtorical and phyſical parts
" of your letter, after having inſiſted ſo long on
" the theological. But though to comply with
" that expectation and my own haſte, I ſkip other
" points relating to divinity, and what were not
" proper for me to meddle with; yet there are
" two things, that I muſt not leave untaken no-
" tice of. And firſt, as for the apology you con-
" clude with for recommending ſome phyſical di-
" rections after Mr. *Greatraks* ſtroking, I think
" moſt of your readers, eſpecially divines, will
" much more eaſily forgive a phyſician the pre-
" ſcribing of medicines, which is a main part of
" his profeſſion, than the irreverent mention you
" are pleaſed to make of the language of one of
" the penmen of the old teſtament, and all but
" one of the new; that mention neither being re-
" quired of you as a phyſician, nor appearing at
" all neceſſary to be made in that place; and,
" but that you wrote in haſte, neither would you
" have publiſhed that, whereby you will needleſsly
" diſpleaſe many, (and I am confident divers of
" your own profeſſion) nor would you of all men
" have addreſſed it to me, who have publickly
" given cauſe to think it muſt be peculiarly un-
" welcome to me. The other theological paſſage
" not to be overlooked is that, which contains an
" opinion, which I think Chriſtianity itſelf may
" be ſo much concerned in, that I cannot forbear,
" as I paſs along, to take ſome little notice of it,
" as by telling you, that in the opinion you hold
" as an *undoubted truth, that God had permitted all*
" *religions to have their real miracles*, I do very
" much diſſent from you. I have not now time
" to examine how far it may be ſaid, that among
" a people or church, where God has already eſta-
" bliſhed a doctrine by divine and acknowledged

" miracles, and has expreſsly foretold, (or at leaſt
" ſufficiently intimated) that it is poſſible he may
" permit ſome ſeducers to work ſtrange things to
" try the people, to whom a divine doctrine atteſt-
" ed by miracles has been delivered; I muſt not,
" I ſay, now ſtay to examine, how far one may
" grant, that in ſuch a caſe, and after ſuch a
" warning, falſe prophets may be permitted to
" work miracles; though for my part I ſee no
" cogent reaſon, why the τέρατα ψευδῆ of the man
" of ſin may not by a conſtruction, which we find
" exceeding common in Hebrew writings, be ren-
" dered (as our Engliſh tranſlation ſeems to inter-
" pret) *falſe wonders*, i. e. miracles, that are as well
" falſe themſelves, as are the doctrine they are
" brought to confirm. But though, as I was ſay-
" ing, I muſt not now inſiſt on a debate of what
" may or may not be granted in the like caſes,
" that I have propoſed; yet ſpeaking as you do
" indefinitely of all religions, and taking real mi-
" racles for ſuch exertions of God's power, as are
" above the power of creatures, I am ſo very
" unapt to believe the ſtories of the Turkiſh, Hea-
" theniſh, and other miracles pretended to by di-
" vers enemies of the Chriſtian religion in confir-
" mation of theirs, and ſome enquiries I have made
" have ſo confirmed me in my diffidence, that
" when I conſider the nature and uſe of true mi-
" racles, (for I ſpeak not of natural prodigies, ſor-
" ceries, or impoſtures,) I confeſs I am ſo little
" convinced, that I ought to believe the ſuſpicious
" and unlikely reports, that go of the miracles of
" the Turks and Heathens, divers of which are
" ſaid to have been done in times and places,
" when there were no miraculous gifts in the
" church to controul them, that perhaps I ſhould
" not believe thoſe, that I find recorded in the
" ſcripture

" ſcripture itſelf, if the relations of them were not " recommended by ſuch concurrent characters of " credibility, as would make my rejecting them " an obſtinacy, and as are of another gueſs weight " than thoſe, that countenance thoſe relations, " whereto I do not give credit. And I little " doubt, but if the pretended miracles of *Pyrrhus* " and *Veſpaſian* had been watched and conſidered " by Mr. *Stubbes* as narrowly as thoſe of Mr. *Grea-* " *traks*'s had been, you would have found at leaſt " as much reaſon to aſcribe their cures, as his, to " phyſical cauſes, if not to ſome miſtake, colluſion, " or flattery, which the perſons, on whom thoſe " wonders are fathered, render the more ſuſpici- " ous. And though perhaps no body will more " willingly grant than I, that the ſoundneſs of the " doctrine ought to go along with thoſe miracles, " that bear witneſs to religion, yet I doubt, whe- " ther the holineſs of doctrine, which may be al- " lowed to ſhow, that a religion may be inſtituted " by God, will, without the aſſiſtance of miracles, " ſufficiently aſſure men, that it really is ſo.

" I COME now to the phyſical part of your " letter, wherein many, that will diſſent from you " about the theological, will, I preſume, confeſs, " that divers things are plauſibly propoſed. And " as you will believe, that I am of their mind in " the general, ſo as to particulars I have not time " to enter into a debate of it, eſpecially ſince you " ſeem willing to refer that taſk to the Members " of the Royal Society, who, if they think fit to " meddle with it, are the likelieſt perſons to give " a fair account of it. But in the mean while to " keep ſcribling as long as the time will permit, I " ſhall briefly take notice of ſome particulars in " the caſual order, wherein they offer themſelves " to my thoughts, premiſing only in general, that

" you write to one, that is almoſt as backward to
" acquieſce in the explications of ſtrange things,
" as to believe the narratives.

" I AM not yet fully convinced, that there is in
" what either you or the ingenious Mr. *Foxcroft*
" relate upon your own obſervations, (of which
" in this whole letter I do upon your teſtimony
" ſuppoſe the truth) any thing, that is purely ſuper-
" natural, (unleſs in the way, wherein he was
" made to take notice of his gift, and exerciſe it,
" there may be ſomething of that kind ;) and
" therefore till the contrary doth appear, I hold it
" not unlawful to endeavour to give a phyſical
" account of his cures, and to enquire, whether
" his touch be any more than a more noble ſpe-
" cifick, that reaches not to all diſeaſes, or to moſt,
" but to more than the generality of ſpecificks,
" whoſe operations are uſually more confined.

" THOSE phyſicians, and other learned men,
" that think every diſeaſe muſt be overcome by
" diſtinct and appropriated remedies, that are con-
" trary to the particular diſeaſe upon the account
" of ſome known quality, as that a fever being a
" diſeaſe hot and dry muſt be cured by remedies
" cold and moiſt, will perhaps think it incredible,
" that the application of one thing ſhould work
" ſo many differing effects, and cure ſo many dif-
" fering diſtempers. But though I think it is
" ſtrange and extraordinary, yet I dare not ſay it
" is impoſſible to mere nature. This would be
" ſufficiently manifeſted, if the relations, that *Hel-*
" *mont* makes of the various and ſudden cures he
" ſaw performed by *Butler*'s drif, either touched
" with the tip of the tongue, or by outward ap-
" plication, were proper to be urged on this oc-
" caſion. But without having recourſe to them,
" the ſtrangeneſs may be leſſened, if we conſider
" theſe

" theſe two things; the one, that diſeaſes are not " always ſo differing in their nature and eſſence as " they are commonly thought, but the ſame mor- " bifick matter for eſſence may produce very dif- " fering ſymptoms, which may be taken for ſeve- " ral diſeaſes, according to the condition of the " parts, that it reſides in, or works upon, (in all or " moſt of which it may be ſubdued by the ſame " remedies, which may deſtroy its texture, giving " it a more innocent one, or proſcribe it) as we " ſee in ſome metaſtaſes of the morbific matter, " which according as it ſucceſſively affect differ- " ing parts has the appearance of ſeveral diſeaſes, " as in ſome of the inſtances you give, and in " hyſterical fits, which ſometimes counterfeit al- " moſt all diſeaſes, and in other examples, which I " have elſewhere taken notice of. The other, that " ſome remedies are of that noble nature, that " their efficacy reaches to diſeaſes, that ſeem of " contrary kinds, as may be ſeen in the operations " of the *Spa* waters, and thoſe which I have in " ſome lucky ſeaſons obſerved at our own wells " near *Tunbridge*; and we ſee how many differing " diſeaſes are cured by an excellent air, which " keeps me from wondering at that ſentence of " *Hippocrates* [c], γῆν μεταμείβειν ξύμφορον ἐπὶ τοῖσι " μακροῖσι νοσήμασι.

" As to what ſeems your main hypotheſis, that " Mr. *Greatraks* performs his cures by the ſtrength- " ning and reinvigorating of nature, which being " relieved and fortified by the ſanative effluvia, " that paſs from his body into the body of the " patient, doth afterwards vanquiſh the diſeaſe her- " ſelf, I doubt not, that you will have many of " your readers of that opinion with you; and par- " ticularly thoſe Helmontians and other chemiſts,

[c] Hipprocatis, Lib. tertii, Sect. 5ta Popular.

" that

" that hope or plead for univerſal medicines,
" operating by way of reſtoratives, will be glad to
" find you to countenance their tenet. For my
" part, unleſs I could ſend you what I once drew
" up by way of diſquiſition about the received
" notion of nature, (wherein perhaps I do not ac-
" quieſce,) I cannot think it proper to mention to
" you my particular thoughts of the power of
" ſtrengthened nature. But ſome ſcrupulous per-
" ſon will not only deny, that nature alone, though
" fortified with any thing, that is but a cordial,
" can cure all diſeaſes, (as for inſtance, the ſtone
" in the bladder, or kidneys, when it is confirmed
" and grown too big to be voided by the urinary
" paſſages) but will perhaps enquire, whether it
" does appear, that Mr. *Greatraks*'s touch is poſi-
" tively a cordial, and not barely or chiefly ſo, as
" it relieves nature by freeing her from ſome diſ-
" tempers, that oppreſſed her, as when burned fea-
" thers remove the faintings of hyſterical women,
" and others are freed from lypothymia's by being
" pinched, or having cold water thrown on their
" faces. But theſe ſcrupulous perſons, (if you
" meet with any ſuch,) will perhaps be more
" eaſily ſatisfied in other caſes than about the cure
" of wens. For whereas Mr. *Greatraks*'s touch
" muſt, according to the forementioned hypothe-
" ſis, free the patient from them, by invigorating
" nature, and enabling her to diſcuſs or preſcribe
" thoſe preternatural collections of matter; I muſt
" inform you, that to omit *Helmont*'s ſtory, I was
" the other day viſited by an eminent phyſician,
" who not long ſince upon occaſion of a fine pen-
" dulum clock, that I was taking notice of in his
" chamber, told me, that it was preſented him
" by ſuch a one, (a well known perſon, that has
" the honour to be one of his Majeſty's domeſticks)

" for

" for having cured his daughter of an almoſt mon-
" ſtrous wen by the laſting application of a dead
" man's hand. And ſuch another cure of a wen,
" or ſome ſuch tumour, I remember our famous
" *Harvey* related to me as performed (if I very
" much miſtake not) by himſelf, by ſtroking the
" wen, as *Helmont* preſcribes, with a dead man's
" hand. But this advantage you have, that how-
" ever it will perhaps be very difficult for thoſe,
" that upon theſe, and the like grounds, do re-
" ject the ſtrengthning of nature, to pitch, among
" the hypotheſes, that are yet noted, upon a more
" plauſible one, eſpecially ſince your great *Hip-*
" *pocrates* is ſuppoſed to be of the like opinion
" when he pronounced that ſentence, Νοσῶν φύ-
" σεως ἰητρος. But I hope you will allow me to add
" (what if I forget not you yourſelf ſomewhere
" ſeem to intimate) that Mr. *Greatraks*'s touch
" may work not only as a cordial or ſtrengthner
" of nature, but as a proper remedy of qualities
" oppoſite to thoſe of the cauſes of the diſeaſes he
" cures. For I do not ſee, why it may not be
" poſſible for the ſanative, and perhaps anodyne
" ſteams of his body to be of ſuch a texture, that
" they may both reinvigorate the ſpirits, and by
" appropriated qualities oppoſe and ſubdue the
" morbific matter or ferment, as we ſee, that le-
" mons (to name no other things) have, beſides
" their cordial virtues, the power to cool, incide,
" and reſiſt putrefaction, and ſtrengthen the ſto-
" mach, and promote urine, *&c.* And when I
" conſider the ſtrange effects, that longing has pro-
" duced in teeming women, and the ſudden and
" manifeſt operations I have ſometimes known
" paſſions to have upon the body, I am not ſure,
" but that ſomething elſe may be fit to be taken
" into conſideration about Mr. *Greatraks*'s cures;

" and

" and that in ſome of his patients the mind by
" exalted imagination, and by ſtrong paſſions,
" (which in ſo extraordinary and ſuppoſedly ſu-
" pernatural as well as publick way of healing
" as his, there are ſeveral circumſtances, that may
" heighten) may have an intereſt in the recovery,
" by occaſioning uſually a great and therefore pro-
" bably ſometimes a lucky commotion in the
" blood and ſpirits, upon whoſe motion (and
" thereby texture) thus altered, that the amend-
" ment, if not recovery, may ſometimes enſue,
" the obvious, though unheeded inſtances of thoſe,
" that are freed from the hiccough, by being told
" of ſome feigned ill news, or even of ſome other
" thing, that but excites a great attention of mind,
" and much more the examples, that have been
" divers times ſeen of diſeaſes frighted, or by fits
" of paſſion driven away, make me think it not
" abſurd to ſuſpect.

" WHAT you mention of morbific ferments, I
" know divers ingenious readers will approve, and
" they ſeem to be of good uſe in the explication
" of diſeaſes. But whether all diſeaſes require fer-
" ments; and whether your doctrine about them
" be as well applicable to the reſt, as to ſome, is
" a diſquiſition, that I ſhall willingly leave to
" thoſe learned men of your faculty, that our age
" and country abounds with.

" WHAT you mention of Mr. *Greatraks*'s ex-
" ciſion of wens and immediately ſtanching the
" blood, as it much takes off from the appearance
" of a miracle, ſo as to the phyſical cauſe of it,
" it may or may not have a great deal of diffi-
" culty, according to ſome circumſtances, which I
" would gladly be informed of. For if the wen
" be ſuch, or ſo placed, that it being cut out by
" a chirurgeon, no ſuch veſſels would be cut as

" that

" that, according to the common courſe of nature,
" the effuſion of blood would be great, it is no
" great wonder it ſhould ſtop after the application
" of his finger, that perhaps compreſſes the orifice
" of the veſſels; and the marvel is confined to the
" ſudden ceſſation of the pain, which may be at-
" tributed to ſome anodyne effluvia iſſuing from
" his hand. But if in the extirpating of the wen
" any great veſſels be cut aſunder, the ſtanching
" of the blood ſeems to be more difficult to be
" accounted for by ſuppoſing with you, that his
" cures are performed by reſtoring the tempera-
" ment of the debilitated parts, and reinvigorating
" the blood. For though this be granted, it will
" not be ſo clear, that the blood ſhould by his
" touch be ſo quickly ſtanched, ſince in a perſon,
" that were perfectly healthy, and where the
" blood needed no invigoration, upon ſuch a ſo-
" lution of continuity there would be a large effu-
" ſion of the continually circulating blood, unleſs
" appropriated means be uſed to ſtay it, as is daily
" ſeen in the wounds received by healthy men.
" The obſervation of ſtanching of blood out of
" *Platerus* I well remember, as having had occa-
" ſion to make uſe of it, together with an expe-
" riment of his own, that he annexes to it, of a
" perſon, that he himſelf cured by the ſame
" means. But I doubt, whether theſe will reach
" your caſe, till you have made out the cauſe of
" this operation. For, that there may be very
" differing applications, that will ſtanch blood,
" may be learned from him in the ſame place,
" where he relates how he made a chirurgeon
" ſtanch a dangerous hæmorrhage, not by the ap-
" plication of a bloody part of a hen, but of aqua
" fortis, which is corroſive inſtead of being bal-
" ſamical. If indeed there be any truth in the

" ſtrange

" ſtrange relations I have met with in ſome navi-
" gators of an Indian ſimple, that worn by a great
" commander, kept his wounds from bleeding,
" (which what I elſewhere mention of the effect
" of the moſs of a dead man's ſkull upon a noble
" friend of mine, does, though not approach,
" make the leſs incredible) it may be more plau-
" ſibly argued, that Mr. *Greatraks*'s finger may in
" this caſe operate as a natural agent; but then
" there will remain ſome little ſcruple, whether
" the effect be wrought in the particular way you
" ſeem to pitch upon, till it appears, that theſe
" things work either as reſtorers of nature, or as
" balſams, and not rather as medicines (by ſome
" hidden virtue) appropriated to ſuch particular
" effects, which ſeems to be the caſe of the moſs
" of dead men ſkulls, and the holding of ſpiders
" to the noſe of bleeding perſons. But perhaps a
" fuller information of circumſtances will eaſe me
" of this ſcruple, and therefore I ſhall not inſiſt
" upon it.

" WHAT you ſay of the ſubtlety of the effluvia,
" and of the great efficacy they are capable of,
" will not be much ſtruck at by a Corpuſcularian.
" And if I could think it proper here to add
" ſome of the inſtances of that kind, which I
" have lying by me in my notes about Occult
" Qualities, (as they are commonly called) perhaps
" they would afford no deſpicable confirmation
" both to what you here ſay, and to what I have
" elſewhere written about the power of inviſible
" corpuſcles. And I am the more perſuaded to
" think great matters performable by them, both
" by ſome odd obſervations, that I have ſince
" met with of the efficacy of the even ſolid parts
" of dead animals, and particularly of a ſea-horſe
" tooth outwardly applied to the body; and by

" conſidering,

" conſidering, that a ſanative temperament may " reaſonably be ſuppoſed capable of diffuſing its " virtue by contacts more plentifully and more " powerfully in a living body of a ſanguine com- " plexion, where the natural heat of the blood " and ſpirits, being vegete and active, inceſſantly " emit ſo great a plenty of inſinuating ſteams, as " living bodies, that tranſpire freely, appear to do " by the notable obſervations of *Sanctorius*'s in- " genious *Medicina Statica*, (not to mention my " own trials to the ſame purpoſe.) I will only " add in favour of the efficacy of ſteams, that I " have ſeveral times made a ſlight preparation of " ſal armoniac, (that I have imparted to divers " ingenious men) by the odour of which more " than once or twice, ſome, that have ſuddenly " fallen down and were taken for epileptick, have " been in a few minutes, after I had held a ſmall " viol under their noſes, brought to themſelves " again; hyſterical vapours, and ſome painful dul- " neſſes of the head, have been often, as the pa- " tients aſſured me, diſſipated for the time in a " trice; and there are at leaſt two or three able " phyſicians, (whereof but one is unknown to you) " who will aſſure you, they have (though not con- " ſtantly) preſently cured the tooth-ach by the " ſteams of that ſame preparation of ſal armoniac, " which they were pleaſed to ſend to me for; and " of which, if I had time, I could tell you ſome " other feats wrought without the contact of the " viſible body.

" As to what you ſay about the poſſibility of " freeing patients from the morbifick matter, " (whoſe bulk oftentimes is not near ſo great as " the miſchief it does) without purging, vomit- " ing, and the like evacuations; I am glad to be " able to confirm by your teſtimony what I ven-

" tured

" tured to publiſh about three years ſince to the
" ſame purpoſe, where I endeavoured to bring
" ſpecificks out of the diſeſteem of a ſort of learn-
" ed phyſicians of a neighbouring country, that
" were very ſevere to them; and where I remem-
" ber I attempted to confirm the opinion you now
" defend, by the inſtances, among others, of thoſe,
" that are cured of agues and other diſeaſes by
" ſudden frights, where there uſually intervenes
" no ſenſible evacuation of peccant matter.

" WHAT you teach, that as to the pains and
" diſtempers, that are thought to fly from him
" from one part of the body to another, they
" avoid not his hand; but his touch and ſtroke
" ſo invigorateth the parts, that they reject the
" heterogeneous ferment, till it be expelled the
" body at ſome of thoſe parts he is thought to
" ſtroke it out at, is a handſom conjecture, and
" agrees very well with your hypotheſis. But I
" perceive by your way of mentioning ſimilar at-
" traction, you are (and that very juſtly) diffident
" of its being granted you by me, who am, I
" confeſs, very ſhy of admitting any thing as a
" principle in matters purely phyſical, that I can-
" not well underſtand, and do not find well proved.
" But you are freed from further effects of my
" ſcrupulouſneſs, by my being called upon by the
" late time of the day to take horſe. I ſhall not
" make you any apology for taking the ſame li-
" berty to diſſent from you in ſome points, that
" you took in propoſing thoſe opinions to me,
" which the knowledge of my principles might
" eaſily make you think I would diſſent from.
" And ſince both your letter and this anſwer are
" written in haſte, as I am willing, that my haſte
" ſhould be my excuſe for any thing, that the
" leiſure of reading over your letter a ſecond time,

and

" and of reviewing what I have confuſedly ſcrib-
" bled might have made me avoid or mend;
" ſo I would not be ſo unkind to you as to im-
" pute to your deſign, whatever ſome critical
" readers may plauſibly enough infer to the pre-
" judice of religion from ſome unſtudied expreſ-
" ſions of your *raptim ſcripta*; nor ſhall I take
" them for your deliberate tenets, unleſs upon a
" review you ſhould ſurpriſe me with declaring
" them to be ſo; but am very willing to leave
" you the liberty of explaining yourſelf in any
" thing, wherein the impetus you tell me you
" writ with, may have had an influence on your
" pen. And as for the phyſiological part of my
" letter, though I have annexed it, leſt you ſhould
" in vain expect ſome of my thoughts of the
" phyſical part of yours; yet not having a com-
" petent knowledge of the matters of fact to
" ground an hypotheſis upon, I have been oblig-
" ed, for want of ſuch an information, and out of
" an unwillingneſs either to ſay nothing to you
" or ſpeak raſhly, rather to diſcourſe on ſome
" paſſages of your epiſtle, than to eſtabliſh any
" theory about the thing itſelf, which future rela-
" tions may oblige me to alter. And therefore as
" I propoſe my ſudden apprehenſions but as con-
" jectures, that amount not to an opinion, ſo I
" ſhall not be concerned, eſpecially being other-
" wiſe ſufficiently buſied, to contend for them.
" And I the more willingly ſuffer my occaſions to
" keep me from troubling you with any more of
" theſe phyſical diſcourſes, becauſe you have in
" ſome ſort addreſſed your letter to the highly
" learned Dr. *Willis*, from whoſe profeſſion and
" abilities you may expect a better account of
" what is like to be applauded or queſtioned in
" the phyſical paſſages of your letter, than from

" him, whoſe parting haſte obliges him to leave " the hiſtorical part untaken notice of, ſave by " his wonder at it, and thanks for it, and to ſub- " ſcribe himſelf ſomewhat abruptly,

" Sir, your very humble ſervant.

At the end of the original of this letter of Mr. *Boyle*, I find in his hand-writing an account of ſome cures performed in his preſence in April 1666, by Mr. *Greatraks*, who in the month preceding had been very ſeverely attacked in a pamphlet, ſuppoſed to be written by Mr. *David Lloyd*, reader of the *Charter-houſe*, and printed in 4to under the title of *Wonders no Miracles: or Mr.* Valentine Greatrates's *Gift of healing examined, upon occaſion of a ſad Effect of his ſtroking, March the 7th*, 1665, *at one Mr.* Creſſet's *houſe in* Charter-houſe-yard. *In a letter to a reverend divine living near that place.* This letter is dated March the 13th, 1665-6, and obliged Mr. *Greatraks* to vindicate himſelf from the imputation caſt upon him in it by publiſhing at *London* in 1666, in 4to, *A brief Account of Mr.* Valentine Greatraks, *and divers of the ſtrange cures by him lately performed. Written by himſelf in a Letter addreſſed to the honourable* Robert Boyle, *Eſq; Whereunto are annexed the Teſtimonials of ſeveral eminent and worthy perſons of the chief Matters of Fact therein related.* In this letter, which is dated at *London* May the 8th, 1666, he obſerves, that though he had not the happineſs formerly to have an acquaintance with Mr. *Boyle*, yet *I was*, ſays he, *no ſtranger to your worth and virtue, which have made you as much admired and reverenced abroad, as honoured and beloved at home. And therefore I have aſſumed the confidence to make this addreſs to your honour, whoſe repute and teſtimony to the*

the world will be ſo powerful (knowing your wiſdom, devotion, and learning to be ſo great,) that truth may find belief, God have glory, and his poor inſtrument be juſtified before men, who hath no farther deſign in the diſtribution of that talent, which the all-healing God has intruſted him withal, than the honour of his Maker, and the good of his poor fellow-creatures, whoſe diſtempers, many of them, neither art nor phyſic probably could reach. At the concluſion he intimates his deſign, when he had an opportunity, to anſwer all the queries, which Mr. *Boyle* had put to him in a paper delivered into his hands, and which he was not then at leiſure to ſatisfy. The teſtimonials ſubjoined to this letter are ſigned, among others, by Mr. *Boyle* himſelf, *William Denton*, M. D. *James Faireclough*, M. D. Sir *William Smith*, Bart. Sir *Nathaniel Hobart*, Knt. and Maſter in Chancery, Sir *John Godolphin*, Knt. *Albert Otto Faber*, M. D. Col. *Geo. Weldon*, *William Knight*, alderman of the city of *London*, Sir *Charles Doe*, Sir *Abraham Cullen*, Bart. *John Wilkins*, D. D afterwards biſhop of *Cheſter*, *Benjamin Whichcot*, D. D. *Ralph Cudworth*, D. D. *George Ruſt*, D. D. and dean of *Connor*, *Simon Patrick*, afterwards biſhop of *Eby*, &c. ſeveral of whom give the higheſt character of Mr. *Greatraks*'s integrity and unblameable converſation in every reſpect.

In the ſame year, 1666, Dr. *John Wallis* addreſſed to Mr. *Boyle* an *Hypotheſis about the Flux* and *Reflux of the Sea*, by way of letter dated from *Oxford*, April 25, and printed in the *Philoſophical Tranſactions*, N°. XVI. p. 264. which begins thus: "You were earneſt with me, when you laſt went "from hence, that I would put in writing ſome-"what of that, which at divers times theſe three "or four years laſt paſt I have been diſcourſing "with yourſelf and others concerning the *common*

" *Centre of Gravity of the Earth and Moon*, in or-
" der to ſolving the phænomena, as well of the
" ſeas ebbing and flowing, as of ſome perplexities
" in aſtronomical obſervations of the places of the
" cœleſtial bodies. How much the world, and
" the great bodies therein, are managed according
" to the laws of motion and ſtatic principles, and
" with how much of clearneſs and ſatisfaction ma-
" ny of the more abſtruſe phænomena have been
" ſolved on ſuch principles within this laſt cen-
" tury of years, than formerly they had been, I
" need not diſcourſe to you, who are well verſed
" in it. For ſince that *Galileo*, and after him
" *Torricellio*, and others, have applied mechanic
" principles to the ſolving of philoſophical diffi-
" culties, natural philoſophy is well known to have
" been rendered more intelligible, and to have
" made a much greater progreſs in leſs than an
" hundred years, than before for many ages."

Dr. *Thomas Sydenham* likewiſe dedicated to him that year his *Methodus curandi Febres propriis obſervationibus ſuperſtructa*, printed at *London* in 8vo. This piece being very ſcarce, though a ſecond edition of it appeared in 1668, and it not being reprinted among that great phyſician's works, I ſhall tranſcribe ſome paſſages of the dedication, which places Mr. *Boyle*'s character in a very amiable light, and informs us, that he uſed to attend Dr. *Sydenham* in viſiting many of his patients.

Illuſtriſſimo & excellentiſſimo Domino, Domino Roberto Boyle.

" Uſque adeo bonorum doctorumque animos,
" quicquid ad te, vir undiquaque nobiliſſime, quo-
" quomodo pertinere conſpicitur, attentos reddit
" & experrectos, ut eos prævideam ſtatim cog-

" noſcendi

" noſcendi avidos, quibus demum fretus rationibus
" nominis tui longè celeberrimi authoritatem ad
" hujuſce operis patrocinium aſciſcere ſuſtinuerim.
" Quid plerique in ſimili negotio pro more cauſari
" ſoleant, me neutiquam fugit. Eſt ſanè, quod
" ego (perinde ac faciunt alii) de multis magniſque
" tuis erga me meritis palam populo commentari
" poſſem; atque etiam grati animi ſpecimen da-
" turus, honoris ac cultûs, quo te proſequor, du-
" raturum aliquod monumentum, multo verbo-
" rum apparatu, architectari. Atqui ejuſmodi con-
" ſilium (ut liberè profitear) in te tam præſidenter
" interpellando ab animo meo procul abfuit. In
" immenſas laudes tuas deſcendere non inſtitui,
" aut eximias animi dotes, quibus decantatiſſima
" anteriorum ætatum nomina unus exæquas, (uber-
" rimam ſane tum mihimet ipſi, tum operi meo
" qualicunque honorificam præfandi materiam)
" ediſſerere. Enimverò id ipſum tractatus à te
" jampridem in lucem emiſſi pleniſſimè loquun-
" tur; nec alio tibi opus futurum eſt præcone, cu-
" jus ſubſidiaria vox nominis tui claritatem ampli-
" ficare ſatagat. Quocirca tritis hiſce jamque tra-
" latitiis præfandi argumentis ultro repudiatis, me
" tractatum hunc ideo in clientelam tuam dediſſe
" profiteor, propterea quod, quemadmodum ego
" tuo ſuaſu atque inſtinctu hanc provinciam ſuſ-
" cepi, ita etiam eorum, quæ hic traduntur, veri-
" tatem & efficaciam tute ipſe, teſtis planè locu-
" pletiſſimus, experientiâ aliquoties comprobatam
" conſpexiſti, dum ad illud obſequii identidem
" deſcenderis, (quæ tua & quidem egregia eſt hu-
" manitas) ut temet in adeundis ægris meis comi-
" tem mihi adjungeres; in quâ ſanè re benignum
" animi affectum ad honeſta utcunque ſe demit-
" tentem, vel invito hujuſce ſæculi genio, oſten-
" diſti."

THE ſame year Mr. *Boyle* publiſhed at *London* in 8vo, his *Hydroſtatical Paradoxes made out by new Experiments, for the moſt part phyſical and eaſy*; which had been preſented to the Royal Society, at whoſe requeſt they had been made in May 1664. In this book, which was publiſhed likewiſe in Latin, he ſhews, that the lower parts of fluids are preſſed by the upper: that a lighter may gravitate upon one, that is more ponderous: that if a body contiguous to it be lower than the higheſt level of the water, the lower end of the body will be preſſed upwards by the water beneath: that the weight of an external fluid is ſufficient to raiſe the water in pumps: that the preſſure of an external fluid is able to keep an heterogeneous liquor ſuſpended at the ſame height in ſeveral pipes, though they are of different diameters: that when a body under water hath its upper ſurface parallel to the horizon, the direct preſſure it ſuſtains is no more than that of a column of water, which hath the abovementioned horizontal ſuperficies for its baſis; and if the incumbent water be contained in pipes open at both ends, the preſſure is to be eſtimated by the weight of a pillar of water, the baſis of which is equal to the lower orifice of the pipe (parallel to the horizon,) and its height equal to a perpendicular, reaching to the top of the water, though the pipe be much inclined, irregularly ſhaped, and in ſome parts broader than the orifice: that a body in a fluid ſuſtains a lateral preſſure from it, which increaſes in proportion to the depth of the immerſed body in the fluid: that water may be able to depreſs a body lighter than itſelf: that a parcel of oil lighter than water may be kept from aſcending in it: that the cauſe of aſcenſion of water in ſiphons may be explained without the notion of *abhorrence* of a *vacuum*: that the heavieſt body

body known will not ſink of itſelf, without the aſſiſtance of the weight of the water upon it, when it is at a depth greater than twenty times its own thickneſs, though it will nearer the ſurface.

HIS *Origin of Forms and Qualities, according to the Corpuſcular Philoſophy, illuſtrated by Conſiderations and Experiments: written formerly by way of Notes upon an Eſſay about Nitre*, was printed likewiſe in 1666 at *Oxford*, in 4to, and reprinted the year following in 8vo, with the addition of a *Diſcourſe of ſubordinate Forms*. In his *Origin of Forms* he delivers the minds of men from the imaginary and uſeleſs notions of the ſchools about them, which have no foundation in the nature of things, nor in the leaſt promote knowledge, or aſſiſt mankind; but very much diſſerve thoſe great intereſts, by ſetting the underſtanding at reſt in general obſcurities, or employing it in airy ſubtilties and diſputes, and ſo hindering its purſuit of particular cauſes and experimental realities. He lays down the foundations, and delivers the principles of the mechanic philoſophy, which he confirms and illuſtrates by ſeveral agreeable and inſtructive experiments. He ſhews, that the moſt admirable things, which have been taken for the effects of *ſubſtantial Forms*, and are uſed as proofs of notional hypotheſes, may be the reſults of the mere texture and poſition of parts; ſince art is able to make vitriol as well as nature, and bodies may be produced by human ſkill, the ſuppoſed forms of which have been deſtroyed. He gives us many very ingenious inſtances to prove, that the mechanic motions and order of the parts is ſufficient to yield an account of the difference of bodies, and their affections, without having recourſe to the forms and qualities of the ſchools; as in the reſtoration of camphire to its former ſmell and nature, after its diſſolution

and ſeeming extinction; in the changes of the colour, conſiſtence, fuſibleneſs, and other qualities of ſilver and copper; in the odd phænomena of a certain anomalous ſalt, and thoſe of the ſea-ſalt, dried, powdered, and mixed with aqua-fortis; and in the ſal mirabilis, in the production of ſilver out of gold by his *menſtruum peracutum*, in the tranſmutation of water into earth in a certain diſtillation of ſpirit of wine and oil of vitriol: in ſhort, he makes it evident, that the internal motions, configuration, and poſition of the parts, are all that is neceſſary for alterations and diverſities of bodies; and conſequently, that ſubſtantial forms and real qualities are needleſs and precarious beings.

He communicated alſo to Mr. *Oldenburgh* ſeveral pieces, which were publiſhed in 1666 in the *Philoſophical Tranſactions*, viz. *A Confirmation of the former Account*, [*Phil. Tranſ.* N°. X. p. 166.] *touching the late Earthquake near* Oxford, *and the Concomitants thereof*: N°. XI. p. 179. *Some Obſervations and Directions about the Barometer*: p. 181. *General Heads for a Natural Hiſtory of a Country, great or ſmall*: p. 186. *A way of preſerving Birds taken out of the Egg, and other ſmall Fœtus's*: N°. XII. p. 199. *An Account of a new kind of Baroſcope, which may be called Statical, and of ſome Advantages and Conveniences it hath above the Mercurial*: N°. XIV. p. 256. *A new frigorific Experiment, ſhewing how a conſiderable degree of cold may be ſuddenly produced without the help of ſnow, ice, hail, wind, or nitre; and that at any time of the year*: N°. XV. p. 256. *Other Inquiries concerning the Sea*: N°. XVIII. p. 315. *Promiſcuous Inquiries about Mines*: p. 334. *The Method obſerved by Dr.* Lower *in tranſfuſing* the blood of one live animal into another: N°. XX. p. 353. *Trials propoſed to Dr.* Lower, *to be made by him for the improvement of*

tranſfuſing

transfusing blood out of one live animal into another: N°. XXII. p. 385. *Proposals to try the effect of the pneumatical Engine exhausted, in plants, seeds, eggs of silk-worms*: N° XXIII. p. 424.

IN 1667 he published in the same *Transactions*, *A Confirmation of the Experiments mentioned in* N°. XXVII. *to have been made by Seignor* Fracassati *in* Italy, *by injecting acid liquors into the blood*: N°. XXIX. p. 551. *New Experiments concerning the relation between Light and Air in shining Wood and Fish*, N°. XXXI. p. 581. And *Observations and Trials about the Resemblances and Differences between burning Coal and shining Wood*, N°. XXXII. p. 605.

THE same year Dr. *Walter Needham* dedicated to him his *Disquisitio Anatomica de formato Fœtu*, printed at *London* in 8vo, with this inscription: *Nobilissimo, clarissimo* Roberto Boyle *Arm. illustrium comitum de* Burlington *&* Orrery *fratri germano, philosophorum principi, hanc suam disquisitionem anatomicam sacram voluit* Gualterus Needham, *M. D.* and he owns in the Preface, that this treatise was drawn up and published at the solicitation of Mr. *Boyle*.

IN the beginning of the year 1668 he wrote a letter of thanks to Dr. *Thomas Sydenham*, upon receiving from him a present of the second edition of his *Methodus curandi Febres*, dedicated to him, as the former had been; to which the doctor returned an answer, dated April 2, 1668, in which he confirms his own practice in the small pox[t], to which Mr. *Locke* had been a witness, and with regard to which he declares, that he had found no cause from his best observation, to repent of any thing said by him in his tract *de Variolis*; though he greatly regretted, that he had not said, that considering the practices, that obtained both a-

[t] Vol. V. p. 639, 640.

mongst

mongſt learned and ignorant phyſicians, it had been happy for mankind, that either the art of phyſic had never been exerciſed, or the notion of *malignity* never been ſtumbled upon. "As it is "palpable, *ſays he*, to all the world, how fatal "that diſeaſe proves to many of all ages, ſo it "is moſt clear to me from all the obſervations, "that I can poſſibly make, that if no miſchief be "done, either by the phyſician or nurſe, it is the "moſt ſlight and ſafe of all other diſeaſes. If it "ſhall be your hap to be ſeized of that diſeaſe, "(as probably you never may) I ſhould recom- "mend to you, upon the word of a friend, the "practice mentioned in the 155th page of my "book." He then takes notice of ſome accidents, which are incident to that diſeaſe, which he was never maſter of till the ſummer before; and of his own ſucceſs in general. "I have the happineſs, "adds he, of curing my patients; at leaſt of "having it ſaid concerning me, that few miſcarry "under me; but cannot brag of my correſpon- "dency with ſome others of my faculty, who, "notwithſtanding my profoundneſs in palmiſtry "and chemiſtry, impeach me of great inſufficien- "cy, as I ſhall likewiſe do my taylor, when he "makes my doublet like a hop-ſack, and not be- "fore, let him adhere to what hypotheſis he will. "Though yet in taking fire at my attempts to re- "duce practice to a greater eaſineſs and plainneſs, "and in the mean time letting the mountebank at "*Charing-Croſs* paſs unrailed at, they contradict "themſelves, and would make the world believe "I may prove more conſiderable than they would "have me. But to let theſe men alone to their "books, I have again taken breath, and am pur- "ſuing my deſign of *ſpecifics*, which, if but a de- "luſion, ſo cloſely haunts me, that I could not

"but

" but indulge the ſpending of a little money and " time at it once more. I have made a great " progreſs in the thing, and have reaſon to hope " not to be diſappointed." But it does not appear, that this *Deſign of Specifics* was ever executed by Dr. *Sydenham*; at leaſt, it was never communicated to the world.

THE Royal Society had from its firſt inſtitution alarmed the zeal of the admirers of the old philoſophy, who affected to repreſent the views of many of its Members to be the deſtruction, not only of true learning, but even of religion itſelf. This gave occaſion to Dr. *Sprat*'s *Hiſtory of the Royal Society*, printed in 1667, and to a diſcourſe publiſhed at *London* in 1668, in 8vo, by Mr. *Joſeph Glanvill*, rector of the church of *Bath*, and afterwards chaplain to King *Charles* II. and prebendary of *Worceſter*, under the title of *Plus Ultra: or, the Progreſs and Advancement of Knowledge ſince the days of* Ariſtotle, *in an account of ſome of the moſt remarkable late Improvements of practical uſeful Learning, to encourage philoſophical Endeavours. Occaſioned by a Conference with one of the notional way.* This conference was with Mr. *Robert Croſſe*, vicar of *Great Chew* in *Somerſetſhire*, who maintained, that " *Ariſtotle* had more advantages for knowledge " than the *Royal Society*, or all the preſent age " had, or could have, becauſe he did *totam peragrare Aſiam* [a]." Mr. *Glanvill* in his 12th chapter, which treats of *the Royal Society*, ſhews the reaſons of their inſtitution, and their deſigns; and returns an anſwer to the queſtion, *What have they done?* In the next chapter he gives *an account of what hath been done by the illuſtrious Mr.* Boyle, *for the promotion of uſeful knowledge*; and obſerves [b], that he alone had even then *done enough to oblige all*

[a] *Glanvill*'s *Plus Ultra*, Ch. I. [b] P. 92, 93.

mankind,

mankind, and to erect an eternal monument to his memory; ſo that had this great perſon lived in thoſe days, when men godded their benefactors, he could not have miſſed one of the firſt places among their deified mortals; and that in his writings are to be found *the greateſt ſtrength and the genteeleſt ſmoothneſs, the moſt generous knowledge and the ſweeteſt modeſty, the nobleſt diſcoveries and the ſincereſt relations, the greateſt ſelf-denial and the greateſt love of men, the profoundeſt inſight into philoſophy and nature, and the moſt devout, affectionate ſenſe of God and of religion.* However this piece did not reſtrain Mr. *Henry Stubbe* the phyſician from publickly attacking the Royal Society with prodigious warmth and ſeverity, upon ſeveral chimerical pretences; and particularly, that the Members of it intended to bring contempt upon ancient and ſolid learning, eſpecially the Ariſtotelian philoſophy; to undermine the univerſities; to deſtroy the eſtabliſhed religion, and to introduce popery in its ſtead. Theſe charges he maintains in various tracts of his, *viz. Legends no Hiſtories: or, a Specimen of ſome Animadverſions upon the* Hiſtory of the Royal Society, *London* 1670, in 4to. *The* Plus Ultra *reduced to a* Non Plus: *or a Specimen of ſome Animadverſions upon the* Plus Ultra *of Mr.* Joſeph Glanvill, *London* 1670, in 4to. *Cenſure of certain paſſages contained in* The Hiſtory of the Royal Society, *&c. Oxford* 1670, in 4to. *Campanella revived*; *or an Inquiry into* The Hiſtory of the Royal Society, *&c. London* 1670, in 4to, and *Reply unto the Letter written to Mr.* Henry Stubbe, *in a defence of* The Hiſtory of the Royal Society, *&c. Oxford* 1671, in 4to. But amidſt theſe outrages againſt that Society, he kept up a correſpondence with Mr. *Boyle*, who ſhewed a ſingular goodneſs of temper, and an uncommon zeal for the public ſervice, in bearing with ſo much pride,

pride, paſſion, and indecent treatment from a perſon, whom he had highly obliged, becauſe he thought him, with all his faults, capable of being uſeful to the world. The following letters will give a clear idea of ſo remarkable a man.

" Honoured Sir,

" I AM much obliged unto you for the trouble " you gave yourſelf by imparting the contents " of my letter to the Members of the Royal So- " ciety. I wonder they ſhould imagine this at- " tempt of mine to be an action I was not pro- " voked unto, whereas Mr. *Glanvill*'s book [g] was " enough to juſtify any ſeverity of proceedings, " it being written by a cabal, and not by him " alone. And it is much more ſtrange to me, " that they ſhould think, that a man needed par- " ticular exaſperations to write againſt that perni- " cious *Hiſtory* [h]. There is no man deſires to live " more in quiet than I do; and to purſue my " practice without intermeddling with the affairs " of the nation. But if that *Hiſtory* take place, " the whole education of this land and all religion " is ſubverted; and I profeſs I am not inclined " ſilently to expect, till fire, faggots, and exile be " the common conſequences of being a proteſtant. " I know this great change was no part of the " intentions of the King, and ſuch honourable " and pious perſons, as firſt aſſociated; but that " the hiſtorian exactly complies with *Campanella*, " is evident; and it is in vain for you not to med- " dle with religion amongſt yourſelves, if you thus " overthrow it in your writings. Upon this ac- " count I ſevered the caſe of your comical wits " from that of the other illuſtrious perſonages; " nor is there any thing in my book, that reflects

[g] *Plus Ultra.* [h] *Sprat*'s Hiſtory of the Royal Society.

" on

" on the King or any perſon of learning or quality. " I gave the licenſer leave to blot out every " thing, that he thought might give juſt offence; " and that he did too much, even to the diſturb- " ing of the ſenſe, practiſing the freedom I gave " him ſo far, that I am forced to add a Review, " thereby to illuſtrate ſome paſſages, which he " had, I know not how, nor upon what reaſon, " curtailed. It is certain and manifeſt, that the " *Hiſtory* muſt be written anew; and I wonder, " that any ſhould ſcruple my amendments of it, " whereof all that comes out now is but a ſpeci- " men; for I have much more behind.

" As for Mr. *Glanvill*, it is much, that the So- " ciety ſhould now appoint him their ſecretary, (I " have not yet ſeen the new model of correſpon- " dence,) ſeeing that he is a man, whom the " univerſities hate and ſcorn, and that hath ſo no- " toriouſly diſobliged the phyſicians, and whoſe " credit is now irrecoverably loſt; for if my pa- " pers ever come out, it will be in vain for any " man to go about to excuſe him from the moſt " groſs ignorance, that ever any writer commit- " ted; and this action looks as if the Society would " own him as a man of worth. Beſides his *Plus* " *Ultra*, his Letter againſt *Ariſtotle* is all miſtakes; " and it is evident he never read *Laertius*. My re- " ply to that Letter will be printed at *Oxford*, I " hope before the end of the next term; but the " publiſhing of that depends upon this; not that " they ſcruple at it, being earneſt for it, but that " I would keep the buſineſs alive by printing one " book after another.

" At the ſeſſion of parliament you will ſee a " *Cenſure* upon certain paſſages in the *Hiſtory*, " with a defence of the *Cenſure* approved by as " eminent divines as this nation yields; which

" will

" will convince you, how juſtly I ſay, that the " *Hiſtory* ſubverts the proteſtant religion and " church of *England*. I never did any thing more " unwillingly than to enter upon divinity, though " now the thirty nine articles, and homilies, and " the proteſtant religion, be the ſubject I defend " againſt Popery and Socinianiſm. I underſtood " of the King's diſpleaſure at me, and that he " ſaid ſome ſevere things; but I was not troubled " at it much, being content rather to ſerve him, " than to flatter him. I did expect to have been " impriſoned, when I firſt undertook it, and there- " fore contrived, how I might be freed again, " never purpoſing to decline the other trouble. " But when I bring the caſe before the Commons, " I am ſure I ſhall here be powerfully abetted, " and the Society will have the worſe, and what- " ever they do before, will add to my plea then. " You will ſee before Twelfth-day, that no incon- " ſiderable perſons will ſpeak favourably of my " intentions, and avow the bravery and neceſſity " of the performance. But I determined not to " engage them to diſcourſe their minds before the " book came out.

" BESIDES that book of *Vander Mye*, there is " Fonſeca *De Sanitate Tuenda*, which I ſent to let " you ſee, what maſtick wood will do in the " gout. I aſſure you, it is a wood I have tried " in bodies apt to catarrhs, and it doth not only " work powerfully in drying them, but purges " twice or thrice in a day, as I found particularly " in Mr. *Garnet*, (that married the lady *Boſwell*,) " lately, to his great recovery out of a malignant " fever, which ended with a perfect ſalivation of " three weeks, and after that endangered him of " a conſumption. But he was perfectly well and " fat again in a few weeks. It is not ill taſted,

" not

" nor hot, but after it is ſwallowed a while, it " creates in the throat ſuch a ſenſe, as remains af- " ter drinking pepper-poſſet.

" If there be any thing, wherein I may ſerve " you, or any other books you need, you may " command them. Had not the Society thus " gone about to injure the phyſicians, I had gone " on with my collection of Engliſh receipts, il- " luſtrating every experiment out of the experi- " ments of the greateſt phyſicians. But in this " empirical ignorant age ſuch works are not to " be publiſhed.

" I ſuppoſe you may have ſeen two pieces of " *Tachenius*: there are in them many experiments, " that are pretty, diſcovering the diſcrepancy of " ſalts, (a thing I have made ſome inquiries into,) " and that gold is acid; which agrees with a way " I learned to make cheeſe and whey with gold " colour, which was tried in a conſumption by a " lady of my acquaintance.

" I HAVE no more to add, but that I am glad " the houſe diſmiſſed that fooliſh impeachment " of my lord *Orrery*. I am,

Warwick, Dec. 17, 1669. " Sir, your obliged humble ſervant,

" HENRY STUBBE.

" I HAD forgot to ſuggeſt one thing to the con- " ſideration of your Society, that perhaps it may " be manifeſted at the parliament, that the hiſto- " rian by his book is chargeable with high-treaſon; " and that there want not ſuch, as think, if your " Society own it, they incur a præmunire; ſo that " whatever they may imagine to draw upon me " (though I may ſuffer a while) will fall worſe on " them, when the world takes notice of the ground " of their actings againſt me, and that they do all

" this,

" this, whom I had repreſented in my preface as " unconcerned in the conteſt."

MR: *Stubbe* wrote likewiſe another letter to him from *Warwick* on the 18th of May, 1670, which was as follows.

" SIR,

" I NEVER doubted, but that Mr: *Boyle* would " never ſwerve from the rules of honour and " ſtrict virtue, whatever the other virtuoſi might " do. You are ſtill conſtant to yourſelf and " worth; but ſo are not they. That you might " hear ſeveral perſons of quality incenſe the King " againſt me, and that his Majeſty let fall ſome " paſſages, that were ſevere, it is not ſtrange to " me: I had an account thereof immediately from " many hands. I know the opportunities my ene- " mies have, and under how falſe repreſentations " Princes diſcern things, who ſee but only with " others eyes, and glaſſes obtruded by the virtuoſi. " I am ſatisfied in the juſtneſs of my attempt, and " the integrity of my deſigns and ſentiments. Had " intereſt moved me, and either deſire of glory, " or any other vulgar inducement, moved me, to " have flattered the Royal Society, to have ad- " mired the preſent condition of our nation, to " have betrayed religion had been my ſpeedy " courſe to effect all my deſigns. But I needed not " any new courſes to be known to the world, or " in this country to advance my practice; and " the firſt thoughts I aſſumed after the deſign of " oppoſing the Royal Society, were to deſert the " land, to encounter all manner of cenſures and " impriſonment, perhaps death; and amidſt theſe " perplexities I did reſolve to proceed, if that " they would be ſo indiſcrete, as not to diſclaim

" thoſe two books. Nor have I yet received any
" intelligence, that propoſeth to me any new and
" unforeſeen danger, and which a man, who is
" weary to have out-lived the proſperity, honour,
" learning of the nation, and who hath no other
" proſpect than the apparent ruin of his country,
" would not willingly ſink under. Yet I find
" amidſt theſe contraſts, that moſt ſober perſons
" commend my deſign, and that my performances
" were neceſſary, and not mean; and I dare ſay,
" that except the miſconſtructions, which my
" Prince puts on my doings, my abettors are
" more numerous, judicious, and noble than my
" enemies. But the conduct of my fate I leave
" to that power, which irreſiſtibly put me upon
" theſe actings, and permitted me no reſt but in
" purſuing them. Whatever befalls me, the world
" will ſay it was malice in the virtuoſi, now that
" the quarrel is ſo boldly begun by me. If you
" conſider the writing of *Glanvill*, you cannot
" ſay, that I proceed in too exaſperating a way;
" I did but write by his copy; nor had I equalled
" him but by out-doing him. Beſides it is *re-*
" *ſponſum, non dictum, quia læſit prior.* And though
" your hiſtorian be the more civil in words, yet
" is his ſenſe parallel to that of *Glanvill*, as I have
" ſhewed in my dedication to both univerſities in
" my *Animadverſions* on the *Hiſtory*. And what
" reaſon the Royal Society had to deal ſo with the
" phyſicians, if it be true, that they had ſuch an
" eſteem for them, and that ſo many eminent per-
" ſons joined with them, I know not, except I
" accommodate all to a ſubſerviency unto *Campa-*
" *nella*; and then it is eaſy to divine. That the
" biſhop of *Ch*[i] had made collections in order to
" the writing of my life, is a thing I am aſſured

[i] *Cheſter*, Dr. *John Wilkins*.

" of

" of from one, who gave me an account of the " tendency of the papers, and of ſome particulars " of them; as alſo of a letter of *Glanvill*'s, which " was a piece of raillery, and paſſed through ſome " hands, containing nothing of truth, but like to " him. They, that put the ſtreſs of their defence " on ſuch foundations, are welcome adverſaries; " yet ſhall I ſay no more to them, than what I " wrote a year ago, when I was firſt threatned " with theſe actions, and which is like to be pub- " lic in my preface to the *Animadverſions* on the " *Hiſtory*. The diſingenuity, with which I have " been treated, admits of no apology; nor can " my lord *Brounker* ever acquit himſelf unto the " world, for having bragged and told the earl of " *Aylesſbury*, that he would licenſe it, if I would " ſend it unto him, and yet declined it. It is " very falſe printed, nor is the catalogue perfect " as to thoſe material. I did appoint ſome to be " corrected with a pen; but orders at a diſtance " are ill obſerved; and I durſt not come up to " ſee it done, for fear of ſome mechanical philo- " ſophers and their ſtratagems.

" I do not yet underſtand by any hands but " yours, that there is ſo great a correſpondence " betwixt the College of Phyſicians and Royal " Society. That ſundry of thoſe few, that were " entred in it, have deſerted and deteſted it, I am " ſure; and ſo Dr. *Scarborough* and others inform " me. Nor do I hear of four intelligent and emi- " nent phyſicians, that heartily adhere to the So- " ciety; and it is evident, that they betray their " faculty, who do it. But this point I have largely " handled in my fourth part, where Dr. *Merret* " is replied unto; which piece I do intend not to " ſuffer to be publiſhed till Michaelmas. As to " thoſe paſſages, wherein you ſeem concerned in

" this piece, I did not think fitting to give you
" a particular account, becauſe you were not di-
" rectly concerned; for in the aerial column, and
" that each little alteration of the air may be diſ-
" covered by the barometer, I only oppoſe *Glan-*
" *vill*, who ſays it is *concluded* to be ſo; not you,
" who make no ſuch poſitive concluſion. As to
" the mixtures of liquors with blood, and their
" operating differently on the blood in a pottinger,
" and when injected into the veins, or aſſumed
" by the mouth, I did give you notice long ago
" thereof, and that I did not think your argument
" for Sp. C. C. to be concluſive. But there is,
" I find, a miſtake in what is printed, where it is
" printed, as if I held the opinion, that ſuch mix-
" tures, when injected, and when made in a pot-
" tinger, were the ſame; whereas I deny it totally,
" and my page 129 contradicts itſelf and the ſub-
" ſequent diſcourſe, if it be taken ſo, as I hear
" you did. I think I gave you an account of ſome
" *Errata* in my laſt. I did not think I needed
" to mention, that in the *Animadverſions* on the
" *Hiſtory* I have laughed at him, that told you for
" an arcanum the uſe of ivy-berries; and I have
" called into ſuſpicion the redintegration of nitre,
" it being manifeſt, I think, that you did not uſe
" the beſt nitre in your calcination. Indeed I
" think I have there given a great inſight into the
" nature of ſalt-petre; yet could have added more,
" had I deſigned an hiſtory, and not mere *Animad-*
" *verſions*. Beſides when that was written, I did
" not intend, unleſs forced unto it, to extend my
" papers beyond ten or twelve ſheets. But if any
" great difference appear betwixt you and me, it
" will be about the ſecond part of your *Uſeful-*
" *neſs of Experiments for Phyſic*; in which book
" I think we phyſicians do ſuffer much; and that

" book hath been the occaſion of all the inſo-
" lencies we have received from *Dowde* to *Glan-*
" *vill* and *Thompſon*; wherein yet your candour
" would unconcern you, but that others make too
" much uſe of it to our prejudice; and our de-
" fence is very facile, as I have briefly ſhewed
" againſt Dr. *Merret*. It was a great unhappineſs,
" that ſeveral perſons of honour like yourſelf
" ſhould ever mix with ſuch inſignificant talkers,
" as the generality are; for you could get no credit
" by them, and their arrogance and folly would
" unavoidably run you all into quarrels, if not
" contempt. And it is apparent, that the Royal
" Society hath not managed things with that diſ-
" cretion, which was neceſſary; and being in-
" formed of their errors, would rather be obſti-
" nate than amend them.

" As to my transferring the glory of ſome in-
" ventions from my countrymen to others, I am
" ſure I have injured no man thereby; for to de-
" prive any man of undue praiſes is no injury;
" for if I had ſaid, that *Pecquet* did ſuppoſe the
" air to be like flocks of wool, I had ſaid true;
" yet I did not, but I ſhall do it e'er long, but
" my reſpects to you hindered me. And I do
" ſuſpect, that the biſhop of *London*'s chaplains,
" and ſome of the Society, in the diſpunging did
" join againſt me, or elſe ſome others had been
" charged for plagiaries, or men of no reading,
" who have eſcaped I know not how. But I do
" think no man was ever uſed as I have been;
" and it is the common concern of mankind, that
" ſuch courſes be not continued.

" I HAVE no more to add, but that I ſhall
" willingly allow many of the Society the facility
" of improving paſt inventions; but I will not
" ſay, contrary to my knowledge, that they did

" invent them, except they will on the other ſide " grant unto me, that they are men of no reading, " and underſtand no more what hath been printed " in *Europe*, than what was invented in *China* " before our commerce with the *Eaſt-Indies*.

" THIS is all, beſides thoſe reſpects, which I " ſhall ever pay unto you upon many ſcores, and " which are ſuch, that except where the common " utility of *England* forceth me to the contrary, " I ſhall ever be

" Your moſt humble ſervant,

" HEN. STUBBE.

I FIND likewiſe a third letter of his dated the 4th of June following:

" SIR,

" I RECEIVED yours, as alſo the two books, " and I cannot but begin my anſwer with ex- " preſſing my ſorrow to find, that you ſtill adhere " to the R. S. Except yourſelf, I do not hear of " any ſober perſon, but approves of my deſign " againſt the Society, and they that diſſuaded me " from it, thought the attempt neceſſary, not " dangerous. I beſeech you, Sir, conſider the " miſchiefs it hath occaſioned in this once flou- " riſhing kingdom; and if you have any ſenſe, " not only of the glory and religion, but even " the being of your native country, abandon that " conſtitution. It is too much, that you contri- " buted to its advancement and repute; the only " reparation you can make for that fatal error, is " to deſert it betimes. Do not you apprehend, " that all the inconveniencies, that have befallen " the land, all the debauchery of the gentry (which

" ariſeth

" ariſeth from that pious and prudent breeding,
" which was and ought to have been continued)
" will be charged on your account? Do you not
" hear, how much the ſerious and ſober men do
" blame you? You are much a ſtranger to the diſ-
" courſe and ſentiments of men, if you know
" not, that your name is frequently queſtioned,
" and that the integrity of Mr. *Boyle* is diſputed,
" as if you in the council of trade, and by ſome
" other engagements, had ſhewed yourſelf leſs a
" patriot and publick ſpirited than was imagined.
" It will be impoſſible for you to preſerve your
" eſteem, but by a ſeaſonable relinquiſhing of
" theſe impertinents. I tender you this teſtimony
" of my ſincere reſpects, that I am thus free with
" you; and whilſt others flatter you, there is an
" old ſervant of yours informs you of the truth.
" What I believe you could never have appre-
" hended, is come to paſs; the body of the na-
" tion, and all learned men abet me: the two uni-
" verſities (eſpecially that of *Cambridge*, which
" was moſt inclined to novelty) avow my quarrel;
" and they, that favoured experimental philoſophy,
" judge thoſe virtuoſi unfit to proſecute it. The
" biſhop of *Chicheſter* reads againſt them, and in-
" tends to hold his lecture a year or two, and that
" for this reaſon, to overthrow the eſteem of
" them. The concurrence to hear him is ſuch,
" as the univerſity never ſaw before. The elect
" of *Bath* is as much as any for me, and againſt
" *Glanvill*. In ſum, all men apprehend it now
" their common intereſt to oppoſe the R. S. I
" know not what any phyſicians may, as the mode
" is, tell you to your face; but except it be ſuch
" as Dr. *Sydenham*, and young *Coxe*, I believe not
" one lives, that doth not condemn your expe-
" rimental philoſophy; and either the college, or

" Sir *Alexander Fraſer*, and the principal of them " intend me a letter of thanks for what I have " done, with the liberty to print it; and perhaps " others will follow the precedent; and how con- " ſiſtent theſe things are with the repute of the " Society you adhere unto, judge you. . . . The " biſhop of *London* hath licenſed that againſt *Sprat* " once more, and approved the preface and dedi- " cation to both univerſities, wherein the paſſages " are more ſevere than any yet publiſhed . . . be- " ing reſolved to keep the controverſy hot, till " the R. S. ſubmit to the terms I propoſe, and " then they had as good diſſolve. I acquaint you " with theſe things, that you may conſult your " own eaſe, and let theſe comediants ſtand or fall " alone; and then whatever reply I ſhall at the " requeſt of the phyſicians at *London* make to you, " ſhall be as amicable as it is poſſible. And if it " pleaſe God to continue us a nation, perhaps you " ſhall ſee a nobler project for the advancement " of uſeful knowledge in reference to phyſic, than " ever your Society was capable of, and which " ſhall add glory to our faculty. It was indeed " the popiſh intereſt to depreſs the phyſicians, " that ſo there might be nothing of learning in " the nation to oppreſs them. Civil law is gone, " the number of learned divines is ſmall, and your " R. S. hath deſtroyed the ſucceſſion. But there " remains enough to retort the ſhame upon the " authors, and cover you all with ignominy. I " have no more to add, but that I ſhall never " quit that reſpect, which becomes

Ragley, June 4, 1670. " Your moſt humble ſervant,

" HEN. STUBBE.

SUCH

SUCH was the impetuous genius of this learned man, of whom, as I ſhall have no other occaſion to mention him again, I ſhall add here this ſhort account, that he was ſon of a miniſter, and born at *Partney* near *Spilſbye* in *Lincolnſhire* on the 28th of February 1631, and at ten years of age ſent to *Weſtminſter* ſchool under the care of Dr. *Richard Buſby*, where by the intereſt of Sir *Henry Vane*, jun. he became one of the King's ſcholars, and in 1649 was elected ſtudent of *Chriſt Church* in *Oxford*[k]. In July 1653 he took the degree of Bachelor of Arts[l], and then went to *Scotland*, where he ſerved in the army till 1655; and in December 1656 took the degree of Maſter of Arts. In the beginning of the year following he was appointed ſecond library-keeper of the *Bodleian* library under Dr. *Tho. Barlow*, which poſt he held till the year 1659, when he was removed from it, as well as from his place of ſtudent of *Chriſt Church*, having the ſame year publiſhed a *Vindication* of his patron Sir *Henry Vane*, *An Eſſay on the good old Cauſe*, and a piece entitled, *Light ſhining out of Darkneſs*, with *an Apology for the Quakers*, in which he reflected upon the clergy and the univerſities. He retired then to *Stratford* upon *Avon* in order to practiſe phyſic there, and after the reſtoration joined himſelf to the church of *England*, *not only*, ſays he in the dedication to biſhop *Morley* of his tranſlation of *Caſa*'s *Arts of Grandeur and Submiſſion*, *upon account of its being publicly impoſed*, (*which in things indifferent is no ſmall conſideration*, *as I learned from the Scottiſh Tranſactions at* Perth,) *but becauſe it is the leaſt defining*, *and conſequently the moſt comprehenſive and fitting to be national*. In 1661 he went to *Jamaica*, being honoured with the title of his Majeſty's phy-

[k] Wood, Athen. Oxon. Vol. II.
[l] Col. Faſti Oxon. Vol. II.

ſician

ſician for that iſland; but that climate not agreeing with his conſtitution, he returned to *England*, and at laſt ſettled in *Warwick*, where he gained very conſiderable practice, as likewiſe at the *Bath*, which he frequented in the ſummer-ſeaſon; but was unfortunately drowned in a river about two miles from that city in a journey to *Briſtol* on the 12th of July 1676, and was interred in the great church at *Bath*, his old antagoniſt Mr: *Glanvill* preaching his funeral ſermon.

But to return to the year 1669, in which Mr: *Boyle* gave the world his *Continuation of new Experiments phyſico-mechanical touching the Spring and Weight of the Air and their Effects. The firſt part. Written by way of Letter to the right honourable the lord* Clifford *and* Dungarvan. *Whereto is annexed a ſhort Diſcourſe of the Atmoſpheres of conſiſtent Bodies; ſhewing, that even hard and ſolid Bodies (and ſome ſuch, as one would ſcarce ſuſpect) are capable of emitting Effluvia, and ſo of having Atmoſpheres:* Oxford, in 4to. *A Diſcourſe of abſolute reſt in Bodies*; added to a ſecond edition of his *Certain phyſiological Eſſays*, London, in 4to: *An Invention to eſtimate the Weight of Water in Water with ordinary Balances and Weights*; printed in the *Philoſophical Tranſactions*, N°: L: p: 1001. a tranſlation of which into Latin is annexed to the Latin edition of his *Hydroſtatic Paradoxes*; and a dilucidation of the experiment in an *Hydroſtatic Letter* printed among his tracts in 1672, in 8vo. He wrote alſo the ſame year *a Letter to Dr:* Peter du Moulin, prefixed to the 4th edition of a book, tranſlated by the doctor from French into Engliſh, and printed at *Oxford* 1669, in 12mo, under the title of, *The Devil of* Maſcon: *or, a true Relation of the chief things, which an unclean Spirit did and ſaid at* Maſcon *in* Burgundy *in the houſe of one Mr:* Francis Perreaud,

reaud, *minister of the reformed church in the same town. Published in French lately by himself, and now made English by one, that hath a particular knowledge of the truth of the story.* It was afterwards indeed reported, that Mr: *Boyle* had disowned the story of that dæmon, as a clear imposture; but he declares, that he never did this, in a letter to Mr: *Joseph Glanvill*, dated at *London* Feb: 10,: 1677-8, wherein he has these words: "Whatever I may "have thought of some incidental passages in the "printed book, yet as to the main story itself, "the conversation I had with the author, when "the thing was fresh in men's memories, and the "notoriety of divers of the circumstances, sur-"mounted my indisposition to believe such things; "and of late years I remember not, that I have "had occasion to discourse much of it, much less "to disown it, especially after a learned and intel-"ligent traveller, that some years ago passed by "that town, and afterwards visited me, informed "me, that he found upon the place itself just "motives to believe the truth of it." Dr: *du Moulin*, the translator of the piece last mentioned, was son of *Peter du Moulin*, the celebrated French protestant divine, and had been tutor to the lord viscount *Dungarvan*, and Mr: *Richard Boyle* his brother, nephews to Mr: *Boyle*; and after the restoration was preferred to be chaplain to the King, and prebendary of *Canterbury*. He had an uncommon genius for Latin poetry; and having collected his performances in that kind, he published them with a dedication to Mr: *Boyle* at *Cambridge* 1670, in 8vo, under the title of *Petri Molinæi P: F:* ΠΑΡΕΡΓΑ. *Poematum Libelli tres.* I: *Hymni in Symbolum Apostolorum:* II: *Ecclesiæ Gemitus.* III. *Sylva Variorum.* In the dedication the doctor highly commends Mr: *Boyle*'s excellent talents in verse,

and his particular reliſh for that kind of poetry, which is devoted to religion. *Cum vero nulla literaturæ pars extra eruditionis tuæ pomœrium poſſit evagari, patere, quæſo, etiam huic poetico labori liberum aperiri apud te angulum. Cui ſanè poſtulationi ut te facilem fore mihimet ſpondeam, tria ſunt. Unum eſt, quod ſeveriora ſtudia poetico melle delenire tibi non eſt inſolens, & in carmine ita excellis, ut niſi excelſiores in te dotes eminerent, ad id unum natus poſſis exiſtimari. Alterum eſt, quod horum poematum nonnulla jamdudum in manibus habuiſti, approbâſti, & cum iis familiaritatem inire non aſpernatus es. Potiſſimum eſt, quod cum ingenii & eruditionis tuæ ſublimitatem immenſum quantum excedat tua erga Deum pietas, & in capaciſſimâ mentis arce regina ſedeat, non poterunt tibi non placere piæ ad Deum aſpirationes, quas tutemet poetico ſpiritu altiùs atque feliciùs attolli non ſemel apud me profeſſus, expertus apud expertum; adjectis hortamentis, quæ mihi ſunt mandatorum loco, ut iſtam aream ſeriò tererem.* The doctor in a letter to Mr. *Boyle*, dated at *Canterbury* December 28, 1669 [m], takes notice of one circumſtance, which deſerves to be mentioned, as it ſhews, how far the prejudices againſt the Royal Society had poſſeſſed the univerſities at that time; for Dr. *Peter Gunning*, afterwards biſhop of *Ely*, *one of the prime licenſers of the book*, would not ſuffer a copy of heroic verſes, which Dr. *du Moulin* had written in commendation of that Society, to be publiſhed with the reſt of his poems. "It grieves me, (adds "he) to ſee a feud between that noble Society "and the univerſities, to which Mr. *Glanvill*'s "books have much contributed. Your great cre"dit, prudence, and moderation may ſtop that "growing evil, if any thing in the world can."

[m] See Vol. V. p. 594.

In

IN 1670 Mr. *Boyle* publiſhed his *Tracts about the coſmical qualities of things; coſmical ſuſpicions; the temperature of the ſubterraneal regions; the temperature of the ſubmarine regions; the bottom of the ſea*; to which is prefixed, *an introduction to the hiſtory of particular qualities*: printed at *Oxford* in 8vo, and tranſlated into Latin. In the tract concerning the *coſmical qualities of things*, he ſhews, 1. That they depend partly upon the influence of external agents, as well as the primary affections of matter; ſo that there are many bodies, which in ſeveral caſes act not, unleſs acted upon, and ſome of them act either ſolely or chiefly, as they are acted on by general and unregarded agents. 2. That there are certain ſubtile bodies in the world, which are ready to inſinuate themſelves into the pores of any body diſpoſed to admit their action, or by ſome other way to effect it; eſpecially if they have the concurrence of other unobſerved cauſes, and the eſtabliſhed laws of the univerſe. 3. That a body by a mechanical change of the texture may acquire or loſe a fitneſs to be wrought upon by unheeded agents, and alſo to diverſify their operations on it, by a variation of its texture. He propoſes next the following *coſmical ſuſpicions*, 1. That beſides thoſe more numerous and uniform ſorts of minute corpuſcles, which are by ſome of the modern philoſophers thought to compoſe the æther, there may poſſibly be ſome other kind of corpuſcles fitted to produce conſiderable effects, when they find bodies to be wrought on by them. 2. That ſeveral perſons have diſcovered peſtilential ſteams in the air, before they acted as ſuch upon other bodies. 3. That conſiderable, though ſlow, changes in the internal parts of the earth may occaſion a variation of the mariner's needle. 4. That the ebbing and flowing

of

of the ſea, and ſuch like phænonema, are occaſioned by ſome *coſmical* law of nature; or that the planetary vortex may be not a little concerned in producing ſuch effects. 5. That all endemical and epidemical diſtempers principally depend upon the influence of thoſe globes, which move about us, and the terreſtrial effluvia of our own globe. 6. That thoſe, which are thought the grand rules, by which things corporeal are tranſacted, and which ſuppoſe the conſtancy of the preſent fabric of the world, and a regular courſe of things, are not altogether ſo uniformly complied with, as we preſume; at laſt, as to the lines, according to which the great mundane bodies move, and the boundaries of their motions. 7. That on the other hand we may perhaps take ſuch things for exorbitances and deviations from the ſettled courſe of nature, as, if long and attentively obſerved, will be periodical phænomena of very long intervals; but becauſe men have not ſufficient ſkill and curioſity to obſerve them, nor a life long enough to be able to take notice of a competent number of them, they readily conclude them to be but accidental extravagancies, which ſpring not from any ſettled and durable cauſes. In the diſcourſes concerning *the temperature of the ſubterraneal and ſubmarine regions*, he obſerves, that there are different regions below the earth; that the firſt region of the earth is very variable both as to bounds and temperature; that the ſecond ſeems to be generally cold in compariſon of the other two; that in ſeveral places, which by reaſon of their diſtance from the ſurface of the earth might be referred to the middle region of it, the temperature of the air is very different at the ſame ſeaſons of different years; that the third region of the earth has been obſerved to be conſtantly and ſenſibly, but not uniformly warm, being

being in ſome places conſiderably hot; that there are two different regions below the ſurface of the ſea, the one extended from the ſuperficies of the water as far downward, as the manifeſt operation of the ſun-beams or other cauſes penetrates, and the other from thence to the bottom; ſo that the upper region muſt vary as to it's extent, according to the difference of the climate and the heat of the ſun, or the nature of the ſoils about the ſhore; but that the lower region is generally cold: he farther tells us, that the bottom of the ſea is very rough and unequal; that the water gravitates conſiderably upon bodies immerſed in it; and that the bottom of the ſea is not diſturbed with ſtorms, but that the water ſtagnates.

THERE were publiſhed alſo *the ſame year* in the *Philoſophical Tranſactions* two other pieces of his, viz. *New Pneumatical experiments about reſpiration*; No. LXII. and *A continuation* of the ſame *experiments*; No. LXIII.

AMIDST all theſe labours for the public he had been afflicted with a ſevere paralytic diſtemper; but the regimen, which he made uſe of with ſucceſs for his relief, will appear from his letter to his friend *John Mallet*, Eſq;

"*London*, May 23, 1671.

"SIR,

"I AM much obliged to you for the favour of "haſtening to me ſuch welcome news, as that "of my brother *Orrery*'s being already put to ſea "with ſo fair a wind, as promiſed he would get "quickly to the other ſide of it. Since monday "when I received the favour of your letter, there "came to my hands a deſire from him relating "to your kinſman, Mr. *Pitt*, which was very need-"leſs; the relation, that gentleman has to you,

"and

" and the concern you expreſs for him, being more
" than ſufficient to make me forward to do him
" all the ſervice I am able. But this, I fear, will
" not be very much; for though, through the
" goodneſs of God, my paralytical diſtemper is
" much leſſened, yet I am far from being fully
" cured of it; and during the ſpace of an eleven
" months paſt ſince it firſt invaded me, I have
" taken ſo many medicines, and found the relief
" they afforded me ſo very ſlow, that it is not eaſy
" for me to tell you what I found moſt good by.
" The things, which to me ſeem the fitteſt to be
" mentioned on this occaſion, are, that cordial
" medicines, eſpecially ſuch, as peculiarly befriend
" the *genus nervoſum*, were very frequently and not
" unuſefully adminiſtered. That I uſed during
" this ſickneſs leſs purging phyſic, and that gen-
" tle, than in many years before; and found cauſe
" to think ſuch evacuations very weakening, and,
" when they are not very neceſſary, dangerous.
" That the dried fleſh of vipers ſeemed to be
" one of the uſefulleſt cordials I took; but then I
" perſevered in taking it daily for a great while.
" That I ſeldom miſſed a day without taking the
" air, at leaſt once, and that even when I was at
" the weakeſt, and was fain to be carried in men's
" arms from my chair into the coach. That the
" beſt thing I found to ſtrengthen my feet and
" legs, and which I ſtill uſe, was ſack turned to
" a brine with ſea-ſalt, and well rubbed upon the
" parts every morning and night with a warm
" hand. That for my hands I uſe ſeveral things,
" and particularly palm oil, which comes from
" *Guinea*, and a liquor ſomewhat like the *ſpiritus*
" *lavendulæ compoſ.* of the diſpenſatory, and alſo
" fomentations with cephalic flowers and herbs,
" one or other of which I yet daily continue.

" But

" But yet I found nothing ſo available as frequent " exerciſe of my hands and feet, in which I con- " tinued as far as my ſtrength would poſſibly allow " me, getting ſometimes others to bend the joints " of my arms and hands for me. And though " this courſe makes me every day ſore and weary, " yet I continue to undergo it, becauſe I think I " find more benefit by it alone, than by all the " outward applications of phyſicians and chirur- " geons. Theſe, Sir, are in brief the chief things, " that I have obſerved about my own diſtem- " per; but how far they will be applicable to that " of your friend, I do not know half ſo well, as " that in caſe he uſe them, they will prove very " effectual, if any thing can be added to their " virtue by the good wiſhes of,

" SIR,

" Your moſt humble

" and affectionate ſervant,

" R. B.

THE ſame year he publiſhed *Some Conſiderations touching the uſefulneſs of experimental and natural Philoſophy, propoſed in a familiar Diſcourſe to a Friend, by way of invitation to the ſtudy of it. The ſecond tome, containing the latter ſection of the ſecond part:* printed at *Oxford* in 4to. and *Tracts: Of a Diſcovery of the admirable Rarefaction of the Air: New Obſervations about the Duration of the Spring of the Air: New Experiments touching the Condenſation of the Air by mere Cold, and its Compreſſion without mechanical Engines: The admirable differing Extenſion of the ſame Quantity of Air rarified and compreſſed: London,* in 4to; a few copies of which

Tracts were reprinted in 1739, but with the former date, only the *errata* in the firſt edition were corrected in it. He communicated likewiſe in the *Philoſophical Tranſactions*, No. LXXIV. p. 2216, *An Obſervation of a Spot in the Sun, April* 27, 1660.

His next work was *An Eſſay about the Origin and Virtue of Gems; wherein are propoſed and hiſtorically illuſtrated ſome Conjectures about the Conſiſtence of the Matter of Precious Stones, and the ſubjects, wherein their chiefeſt Virtues reſide*: printed at *London*, 1672, in 8vo, and tranſlated into Latin. In this *Eſſay* he informs us, that gems were once fluid, and have their virtues from mineral matter; which he ſhews from their tranſparency, figuration, internal texture, their colours being probably adventitious, heterogeneous matter having being found in their ſubſtance, and metalline or mineral mixtures mixed with their ſmall parts. He obſerves further, that a greater ſpecific gravity in gems argues their metalline or mineral nature, and that metals or minerals may be extracted from them. He tells us, that mineral productions are exceedingly numerous in the bowels of the earth, and that various menſtrua are likewiſe to be found there; and ſhews the formation of gems from a petrifying juice or ſpirit mixing in a ſufficient proportion with the impregnated waters in the earth, ſo as to coagulate and unite with them. That ſome of their real virtues may be derived from hence, that whilſt they were in a fluid form, the petreſcent ſubſtance was mixed with mineral ſolution, tincture, or other impregnated liquor; and that theſe were afterwards coagulated or united, and hardened into a gem.

The ſame year he publiſhed his *Tracts, containing, New Experiments touching the Relation between Flame and Air; and about Exploſion: An hydroſtatical*

droſtatical Diſcourſe, occaſioned by ſome Objections of Dr. Henry More *againſt ſome Explications of new Experiments made by the Author of theſe Tracts. To which is annexed an hydroſtatical Letter, dilucidating an Experiment about a Way of weighing Water in Water: New Experiments of the poſitive or relative Levity of Bodies under Water: About the differing Preſſure of heavy Solids and Fluids: London*, in 8vo. *Some Obſervations about ſhining Fleſh, both of Veal and of Pullet, and that without any ſenſible putrefaction in thoſe bodies:* printed in the *Philoſ. Tranſact.* No. LXXXIX. p. 5108. and *A new Experiment concerning the Effect of the varying Weight of the Atmoſphere upon ſome Bodies in the Water; and ſuggeſting a conjecture, that the very Alteration of the Air in point of Weight may have conſiderable Operations even upon men's ſickneſs or health: Philoſ. Tranſact.* No. XCI. p. 5156.

THE year 1673 produced to the world his *Eſſays of the ſtrange Subtilty, great Efficacy, determinate Nature of Effluviums. To which are annexed New Experiments to make Fire and Flame ſtable and ponderable; with additional Experiments about arreſting and weighing of igneous Corpuſcles; together with a Diſcovery of the Perviouſneſs of Glaſs to ponderable Parts of Flame:* printed at *London* in 8vo, and tranſlated into Latin: and *A Letter concerning Ambergreaſe, and its being a vegetable production: Philoſ. Tranſact.* No. XCVII. p. 6113.

HE wrote likewiſe, in December that year, the following letter to a gentleman in the *Levant*, whom he deſired to tranſmit to him ſuch obſervations, as he thought proper, concerning thoſe countries, and to whom he now ſent ſeveral copies of Dr. *Edward Pococke*'s Arabic tranſlation of *Grotius*'s book *De Veritate Religionis Chriſtianæ*, as a means of propagating Chriſtianity there.

London, Decem. 10, 1673.

" SIR,

" I WERE as unjuſt to you, as unkind to " myſelf, if I ſhould at all deceive you in the " expectation you had, that your letter would not " be thought by me, either to need an apology, " or be an impertinence. That liberty of writing " to me, which you out of modeſty are pleaſed " to ſtile a privilege, is that, whoſe effects I ſhall " always look upon as favours; and the greater, " if you give yourſelf the trouble, and me the " ſatisfaction, to let them convey to me what " you call the ſtories and obſervations of the " country you are in; for it cannot but be wel- " come as well as inſtructive to a perſon, that " does as much deſire as want good obſervations " about the *Levant*, to receive accounts of ſuch " remote places and things from ſo ſure a hand " as yours.

" I HOPE I ſhall not allow myſelf the vanity of " receiving the complements you make me in re- " ference to *Grotius*, but as effects of your civility " and charity; what I have been able to do, hav- " ing been but to hand over to others thoſe lamps, " which that excellent perſon framed and lighted. " But I ſhall confeſs to you, that I have a great " deal of ſatisfaction to find ground to hope, by " what you tell me, that my poor endeavours " to promote the Goſpel in thoſe parts, are not " like to prove altogether fruitleſs. And though " they were firſt and chiefly deſigned for the con- " verſion of infidels (to which end I hope you " will in due time attempt to make them ſer- " viceable) yet I muſt not think them miſem- " ployed, if they be bleſſed to inform or confirm " the poor and ill-inſtructed Chriſtians in thoſe

" parts,

" parts, eſpecially ſince the ſame arguments, that " work on them, may, through his bleſſing, for " whoſe truth they militate, enable them in time " to work on their Mahometan countrymen. I " have therefore by the merchant, to whom you " directed me, ſent you three dozen more of thoſe " Arabic books, bound as the others were, being " not ſolicitous to exceed that number now, both " becauſe I had but ſhort warning given me of the " departure of the ſhips, and becauſe of the danger " of the ſeas; but I hope hereafter to ſend a fur- " ther ſupply; and in the mean time muſt return " you my humble thanks, both for your zeal and " concern in a work, that aims at the glory of " our common maſter, and for thoſe obliging " prayers, the continuation of which is earneſtly " begged of you by,

" SIR,

" Your moſt affectionate friend

" and very humble ſervant,

" R. B.

" A SMALL treatiſe of mine being lately ven- " tured abroad, I preſume the reliſh you formerly " had for philoſophical ſtudies, may keep that " from being altogether unacceptable to you."

THE ſame year *Anthony le Grand*, an eminent Carteſian Philoſopher, dedicated to him his *Hiſtoria Naturæ variis Experimentis & Ratiocinis elucidata, ſecundum Principia ſtabilita in Inſtitutione Philoſophiæ edita ab eodem Authore*, printed at *London* in 8vo. This gentleman was born at *Doway* in *Flanders*, and entered himſelf in the order of Do-

minican friars, and was afterwards ſent to preſide over the miſſion in *England*, where he reſided many years, and in Auguſt 1695 was tutor to the eldeſt ſon and heir of Mr. *Farmer* of *Tuſmore* in *Oxfordſhire* [n]. In his dedication he does juſtice to Mr. *Boyle*'s univerſal reputation for extenſive learning and amazing ſagacity in every part of experimental philoſophy; and applies to him what *Averroes* ſaid of *Ariſtotle*, that nature had formed him as an exemplar of the higheſt perfection, to which mankind can attain; and obſerves, that the Royal Society paid the higheſt deference to his judgment: *Adeo diffuſa eſt, per totam Angliam, imo per orbem univerſum, nominis tui gloria, ut vix inter eruditos annumeretur, qui ſapientiam tuam non agnoſcit, & cultu peculiari non amplectitur. Enimverò quis* unquam *te* doctior, *ut quondam de Ariſtotele Romanus orator*, quis acutior, quis in rebus vel inveniendis vel judicandis acrior fuit? *Ita enim in rebus adinveniendis ſolers es, ita in detegendis naturæ arcanis ſagax, ita in promovendâ experimentis philoſophiâ felix, ut non immerito de te, quod in Ariſtotelis laudes aliquando veluti lymphatus eſt Averroes, dici queat, quod* regula & exemplar ſis, quod natura invenit ad demonſtrandam ultimam perfectionem humanam. *Hæc omnium doctorum, qui te norunt, ſententia, cui ſuffragatur celeberrima Londinenſis Regia Societas, quæ tam præclara artis & induſtriæ ſuæ edidit ſpecimina, dum in omnibus, quæ aggreditur, nihil te inconſulto molitur, te aſſerente, numquam diſſentit, te impugnante, nunquam obluctatur.*

In 1674 Mr. *Boyle* publiſhed his *Tracts, conſiſting of obſervations about the ſaltneſs of the ſea: An Account of a Statical Hygroſcope and its uſes, together with an Appendix about the Force of the Air's Moiſture: A Fragment about the natural and preternatural*

[n] *Wood. Athen. Oxon.* Vol. II. col. 819. 2d Edit.

ſtate

ſtate of Bodies. To all which is premiſed a ſceptical Dialogue about the poſitive or privative nature of Cold: with ſome Experiments of Mr. Boyle's *referred to in that diſcourſe:* printed at *London*, in 8vo, and tranſlated into Latin. In the *Obſervations concerning the ſaltneſs of the ſea*, he tells us, that the true cauſe of it is from the ſalt, which is diſſolved in it; which ſalt is ſupplied, not only from rocks and other maſſes of ſalt, which at the beginning were, or in ſome places may yet be found, either at the bottom of the ſea, or at the ſides, where the water can reach them; but alſo from the ſalt, which the rains, rivers, and other waters diſſolve in their paſſage through many parts of the earth, and at length carry along with them into the ſea. He informs us of a method to make ſea-water freſh by diſtillation; and obſerves, that the taſte of ſea-water is not ſuch a ſimple ſaline taſte, as ſpring-water would receive from *ſal-gemmæ*, or ſome other pure terreſtrial ſalt diſſolved in it, but a bitteriſh one; which muſt be derived from ſome peculiar cauſe, which authors commonly overlook; and is occaſioned by the liquid and other bitumen, which is carried by ſprings and other waters into the ſea; and he ſuſpects, that the various motion of the ſea, and its being expoſed to the action of the air and ſun, may contribute to give it a taſte other than ſaline, ſince ſea-ſalt by being barely expoſed for many months to the air, and ſometimes put into a gentle agitation by a digeſtive heat, acquired a very different taſte from the ſimple ſolution of ſea-ſalt in common water. He remarks likewiſe, that there are various degrees of ſaltneſs in different parts of the ſea. In his *Account of a Statical Hygroſcope* he informs us, that it is deſigned to ſhew, 1. The different variations of weather in the ſame month, day, and how. 2. How much one year

and ſeaſon is drier or moiſter than another. 3. To diſcover and compare the changes of the temperature of the air made by winds, ſtrong or weak; froſty, ſnowy, or other weather. 4. To compare the temperature of different houſes and different rooms in the ſame houſe. 5. To obſerve in a chamber the effects of the preſence or abſence of a fire. 6. To keep a chamber at the ſame degree, or at an aſſigned degree of drineſs. In the *Appendix about the Force of the Air's Moiſture* he gives us inſtances of that force at all ſeaſons, upon animal ſubſtances, vegetables, metals, and minerals, with a deſcription of a *cord hygrometer*.

The ſecond work, which he publiſhed the ſame year, was intitled, *The Excellency of Theology compared with Natural Philoſophy, as both are the Objects of Mens Study; diſcourſed of in a Letter to a Friend. To which are annexed, ſome occaſional Thoughts about the Excellency and Grounds of the mechanical Hypotheſis:* printed at *London* in 8vo, and tranſlated into Latin. This diſcourſe was written in 1665, while Mr. *Boyle*, to avoid the great plague, which then raged in *London*, was obliged to retire into the country, and frequently to paſs from place to place, unaccompanied with moſt of his books °.

Next followed his *Tracts: containing*, I. *Suſpicions about ſome hidden Qualities of the Air; with an Appendix touching Celeſtial Magnets, and ſome other Particulars.* II. *Animadverſions upon Mr.* Hobbes's Problemata de Vacuo. III. *A Diſcourſe of the Cauſe of Attraction by Suction.* Printed at *London* 1674, in 8vo, and tranſlated into Latin. In the *Suſpicions about ſome hidden Qualities of the Air*, he mentions ſome unheeded cauſes of the ſalubrity or inſalubrity of the air, which may be compriſed under the following propoſitions: 1. That it is pro-

° See the publiſher's advertiſement to the reader.

bable,

bable, that in ſeveral places the ſalubrity or inſalubrity of the air in general may in a great meaſure depend on ſubterraneous expirations. 2. That in ſeveral places endemical diſtempers chiefly or partly depend on ſubterraneous ſteams. 3. That epidemical diſtempers are in a great meaſure occaſioned by ſubterraneous *effluvia*. 4. That moſt diſeaſes called new ones, chiefly or concurrently, depend on thoſe *effluvia*. He then points out the uſes of his doctrine of ſubterraneous and celeſtial effluvia in the air; and tells us, 1. That we may take occaſion from thence to conſider, whether ſeveral changes of temperature and conſtitution in the air, both as to manifeſt and latent qualities, may not ſometimes be derived from the ſcarcity or plenty, and peculiar nature of one or both of theſe ſorts of *effluvia*. 2. That poſſibly ſome bodies, which we are converſant with, may have a peculiar nature, diſpoſition, and fitneſs to be wrought upon by, or to be aſſociated with ſome of thoſe foreign *effluvia*, emitted by unknown bodies lodged under ground, or which proceed from ſome particular planet. For what we call *ſympathies* and *antipathies* depending really on the peculiar textures and other modifications of the bodies, between which theſe friendſhips and hoſtilities are ſaid to be exerciſed, I ſee not, ſays he, why it is impoſſible, that there ſhould be an affinity between a body of a fit or convenient texture, eſpecially as to the ſhape and ſize of its pores, and the *effluvia* of any other body, whether ſubterraneal or ſidereal. 3. That it may be conſidered, whether among the bodies, which we are acquainted with here below, there are not ſome, which may prove receptacles, if not alſo the attractives of ſidereal and other foreign *effluvia*, which rove up and down in the air. By attractives are meant ſuch magnetical bodies, as are

fitted

fitted to detain and join with *effluvia*, when by virtue of the various motions, which belong to the air as a fluid, theſe happen to accoſt them. He mentions likewiſe the great effect of the air in producing colours, and ſome *experiments* to manifeſt ſome *hidden qualities in the air*, and ſome *obſervations about the growth of metals in their ore expoſed to the air*.

He communicated alſo to the editor of the *Philoſophical Tranſactions*, *An Account of the two ſorts of the* Helmontian *Laudanum, together with the Way of the noble Baron* F. M. Van Helmont, *Son to the famous* Johannes Baptiſta, *of preparing his Laudanum*. No. CVII. p. 147.

In 1675 he publiſhed at *London*, in 8vo, *Some Conſiderations about the Reconcileableneſs of Reaſon and Religion. By* T. E. *a Layman. To which is annexed by the Publiſher a Diſcourſe of Mr.* Boyle *about the Poſſibility of the Reſurrection*. In the beginning of this treatiſe there is mention made of its being to conſiſt of two parts; one, to ſhew, that a Chriſtian *need not* lay aſide his reaſon; and the other, that he is *not commanded* to do ſo; but the author thought fit to keep that paper, which related to the latter, from accompanying the former, which ſeemed the moſt ſeaſonable, and likelieſt to make impreſſions on that ſort of perſons, whom he chiefly deſigned to perſuade. Several pieces of his were likewiſe printed the ſame year in the *Philoſophical Tranſactions*, viz. *A Conjecture concerning the Bladders of Air, that are found in Fiſhes, communicated by* A. J. *and illuſtrated by an Experiment ſuggeſted by the honourable Mr.* Boyle. No. CXIV. p. 310. *A new Eſſay-Inſtrument invented and deſcribed, together with the Uſes thereof*. Ibid. No. CXV. p. 329. *Ten new Experiments about the weakened Spring, and ſome unobſerved Effects of the Air*;

Air; where occur not only ſeveral Trials to diſcover, whether the Spring of the Air, as it may divers ways be increaſed, ſo may not by other ways than Cold or Dilatation be weakened; but alſo ſome odd Experiments, to ſhew the Change of Colours producible in ſome ſolutions and precipitations by the Operation of the Air. Ibid. No. CXX. p. 467. *An experimental Diſcourſe of Quickſilver growing hot with Gold.* Ibid. No. CXXII. p. 515. In this laſt piece he obſerves, that he had many years before made trials, whether ſome of the heterogeneous particles, which he found reducible with mercury into a laſting mercurial flux, might not ſo alter it, as to diſpoſe it to heat with gold. *And that there were ſuch,* ſays he, *through God's bleſſing, my trials afforded me poſitive proof about the year* 1652. For when he was alone, that he might not be impoſed upon by others, he took to one part of his prepared mercury ſometimes half the weight, and ſometimes an equal weight of refined gold reduced to a calx or ſubtle powder. This he put into the palm of his left hand, and putting the mercury upon it, ſtirred it and preſſed it a little with the fingers of his right hand, by which the two ingredients were eaſily mingled, and grew not only ſenſibly but conſiderably hot, and that ſo nimbly, that the incaleſcence ſometimes came to its height in about a minute of an hour by a minute-clock. He found the experiment ſucceed, whether he took altogether, or but half as much gold as mercury; but the effect ſeemed to be much greater, when they were employed in equal weight. He tried alſo the ſame mercury with refined ſilver reduced to very fine powder; but he could not perceive any heat or warmth at all, though he was apt to think, with a ſufficient quantity of leaf-ſilver it might have been ſenſible. He made trial oftner than

than once in the hands of others, who were not a little ſurpriſed and pleaſed with the event; and particularly having given the ingredients to Mr. *Oldenburg*, he deſired him to make the experiment in and with his own hand, in which it proved ſucceſsful within ſomewhat leſs than a minute of an hour. Mr. *Boyle* however tells us, that he will not hence determine, whether thoſe, that are *mercurii corporum*, and were made, as chemiſts preſume, by extraction only from metals and minerals, will each of them grow hot with gold; "as (ſays he) if I "much miſtake not, I found antimonial mercury "to do. Nor will I affirm, that every metalline "mercury, though never ſo diſpoſed to incaleſcence, or even that of ſilver and gold itſelf, is "the ſame with that, which the Chryſopœan writers mean by their *philoſophic mercury*, or is near "ſo noble as this. Nay I will not ſo much as "affirm, that every mercury obtained by extraction, even from the perfect metals themſelves, "muſt needs be more noble and fit, as alchemiſts "ſpeak, for the *philoſophic work*, than that, which "common mercury ſkilfully freed from its recrementitious and heterogeneous parts, and richly "impregnated with the ſubtle and active ones of "congruous metals or minerals. —But if there be "any truth in what ſome of the moſt approved "Spagyriſts have delivered about a ſolvent of "gold, that ſeems of kin, and perhaps is not "much nobler than one that I had; it ſeems allowable to expect, that even ours ſhould be of "more than ordinary uſe both in phyſic and alchemy." This diſcourſe occaſioned Mr. (afterwards Sir) *Iſaac Newton* to write the following[p] letter to Mr. *Oldenburg* from *Cambridge*, dated April 26, 1676.

[p] In the poſſeſſion of *William Jones*, Eſq.

"SIR,

"SIR,

"* * * * Yesterday I reading the two last "*Philosophical Transactions* had the opportunity to "consider Mr. *Boyle*'s uncommon experiment about "the *incalescence of gold and mercury.* I believe "the fingers of many will itch to be at the know-"ledge of the preparation of such a mercury; "and for that end some will not be wanting to "move for the publishing of it, by urging the "good it may do in the world. But, in my "simple judgment, the noble author, since he has "thought fit to reveal himself so far, does pru-"dently in being reserved in the rest. Not that "I think any great excellence in such a ☿, ei-"ther for medical or chemical operations; for it "seems to me, that the metalline particles, with "which that ☿ is impregnated, may be grosser "than the particles of the ☿, and be disposed to "mix more readily with the ☉ upon some other "account than their subtilty; and then in so "mixing, their grossness may enable them to give "the parts of the gold the greater shock, and so "put them into brisker motion than smaller par-"ticles could do, much after the manner, that "the saline particles, wherewith corrosive liquors "are impregnated, heat many things, which they "are put to dissolve, whilst the finer parts of "common water scarce heat any thing dissolved "therein, be the dissolution never so quick. And "if they do heat any thing (as quick lime) one "may suspect, that heat is produced by some sa-"line particles lying hid in the body, which the "water sets on work upon the body, which they "could not act on, whilst in a dry form. I would "compare therefore this impregnated ☿ to some "corrosive liquor as aqua fortis; the mercurial

"part

" part of the one to the watery or phlegmatic " part of the other, and the metallic particles, " with which the one is impregnated, to the ſaline " particles, with which the other is impregnated; " both which I ſuppoſe may be of a middle nature " between the liquor, which they impregnate, and " the bodies they diſſolve, and ſo enter thoſe bo- " dies more freely, and by their groſſneſs ſhake " the diſſolved particles more ſtrongly, than a " ſubtiler agent would do. If this analogy of " theſe two kinds of liquors may be allowed, one " may gueſs at the little uſe of the one by the " indiſpoſition of the other, either to medicine " or vegetation. But yet becauſe the way, by " which ☿ may be ſo impregnated, has been " thought fit to be concealed by others, that have " known it, and therefore may poſſibly be an inlet " to ſomething more noble, not to be commu- " nicated without immenſe damage to the world, " if there ſhould be any verity in the Hermetic " writers; therefore I queſtion not, but that the " great wiſdom of the noble author will ſway him " to high ſilence, till he ſhall be reſolved of what " conſequence the thing may be, either by his " own experience, or the judgment of ſome other, " that thoroughly underſtands what he ſpeaks " about; that is, of a true Hermetic philoſopher, " whoſe judgment (if there be any ſuch) would " be more to be regarded in this point, than that " of all the world beſide to the contrary, there " being other things beſide the *tranſmutation of* " *metals*, (if thoſe great pretenders brag not) " which none but they underſtand. Sir, becauſe " the author ſeems deſirous of the ſenſe of others " in this point, I have been ſo free, as to ſhoot my " bolt; but pray keep this letter private to yourſelf.

" Your ſervant,

" ISAAC NEWTON."

In

IN 1676 Mr. *Boyle* gave the public his *Experiments, Notes, &c. about the mechanical origin or production of divers particular qualities: among which is inſerted a Diſcourſe of the Imperfection of the Chemiſts Doctrine of Qualities; together with ſome Reflections upon the Hypotheſis of Alkali and Acidum:* and likewiſe diſcourſes *of the mechanical origin of Heat and Cold: Experiments and Obſervations about the mechanical production of Taſtes: Of Odours: Advertiſements about the Experiments and Notes relating to chemical Qualities: Experiments and Notes about the mechanical Origin and production of Volatility: — Of Fixedneſs: — Of Corroſiveneſs and Corroſibility: Of the mechanical Cauſes of chemical Precipitation: Experiments and Notes about the mechanical Production of Magnetiſm, and of Electricity.* Printed at *London* in 8vo. In the *Mechanical Origin of Heat and Cold* he ſhews, how a great degree of coldneſs may be produced at any time of the year. That a coldneſs may be produced by the mixture of warm bodies, and heat by the mixture of cold bodies. That ebullition is no argument of heat. That the ſame body, which cools ſome liquors, may heat others. That heat is mechanically producible. That agitation, and various determinations, and ſmalneſs of the moving particles, are requiſite to heat. And that not only weather-glaſſes, but likewiſe our ſenſes may give us miſinformation about cold by ſeveral prediſpoſitions, and the temper of our ſenſories, as we find it colder in the air coming out of a hot bath, than when only out of a warm room. In his *Experiments and Obſervations about the mechanical Production of Taſtes* he defines taſte, as belonging to the object, to be that quality, or whatever elſe it be, which enables a body, by its operation, to produce in us that ſenſation, which we feel, or

perceive, when we ſay we taſte; and then ſhews, that this quality depends upon the ſhape, ſize, motion, and other mechanical affections of the ſmall parts of the taſted body, and reſults from the aſſociation of two or more of them, not excluding their congruity or incongruity to the organs of taſting. In his *Experiments and Notes about the mechanical Origin and Production of Volatility*, he informs us, that to make a body volatile, the parts muſt be very ſmall, not too ſolid or heavy, but conveniently ſhaped for motion; and that they looſely adhere, or at leaſt be united in ſuch a manner, as does not much indiſpoſe them to be ſeparated by the fire in the form of fumes or vapours. With regard to *Fixedneſs*, he ſuppoſes the qualifications, that conduce moſt to it, are, 1. The groſſneſs or the bulk of corpuſcles the body conſiſts of. 2. The ponderouſneſs or ſolidity of thoſe corpuſcles. 3. The inaptitude of them for avolation, by reaſon of their branchedneſs, irregular figures, crookedneſs, or other inconvenient ſhape, which entangles the particles among one another, and makes them difficult to be extracted. He explains the theory of *Corroſiveneſs* by obſerving, 1. That it is requiſite, that a corroſive medium ſhould abound with corpuſcles not too big to get in at the pores of the body to be diſſolved, nor yet ſo minute as to paſs through them, as the rays of light through glaſs; or to be unable by reaſon of their great ſlenderneſs and flexibility to disjoin the parts, which they invade. 2. That theſe corpuſcles be of a ſhape fit to inſinuate themſelves into the pores abovementioned, in order to diſſociate the ſolid parts. 3. That they have a competent degree of ſolidity to disjoin the particles of the body to be diſſolved; which ſolidity of ſolvent particles is ſomewhat diſtinct from their bulk, as may

may appear by comparing a ſtalk of wheat and a metalline wire of the ſame diameter. 4. That the corpuſcles of the menſtruum be ſuch, as are fit to ſeparate the parts of the invaded body, either by their ſhape, minuteneſs, or fitneſs to have their action befriended by aſſiſting cauſes, ſuch as, firſt, the preſſure of the atmoſphere, which may impel them into the pores of bodies, not filled with a ſubſtance ſo reſiſting as common air; and ſecondly, that the intruding corpuſcles may be fitted to receive in thoſe pores by the tranſcurſion of ſubtile ætherial matter, or by the numerous pulſes of the ſwimming corpuſcles of the menſtruum itſelf, whereby, like ſo many little wedges and levers, they may be inabled to force aſunder the little parts, between which they inſinuate. This theory he confirms by experiments. He then explains that of *Corroſibility*, which property appears to him to conſiſt in three requiſites: 1. That the body to be corroded have pores of ſuch a magnitude and figure, that the corpuſcles of the ſolvent may enter them, and agitate the ſolid parts, that incloſe them. 2. That its conſiſtent corpuſcles be of ſuch a bulk and ſolidity, as does not render them incapable of being disjoined by the action of the inſinuating corpuſcles of the menſtruum. 3. This property conſiſts in ſuch a coheſion of the parts, as is not too ſtrong to be ſuperable by the action of the menſtruum. This theory he likewiſe confirms by experiments. With reſpect to *Precipitation* he obſerves, that by it is meant ſuch an agitation or motion of an heterogeneous liquor, as makes the parts of it ſubſide in the form of a powder or other conſiſtent body; and that it may be mechanically accounted for from the gravity and bulk of the diſſolved body, from weakening the ſolvent, and by preſenting

another body to be wrought upon, &c. And with regard to *Electricity*, he tells us, that electrical bodies act mechanically; and that electricity is producible by mechanical changes.

He communicated to the public the same year, in the *Philosophical Transactions*, *New Experiments about the superficial Figures of Fluids, especially of Liquors contiguous to other Fluids.* No. CXXXI. p. 775. and *A Continuation of the Experiments published in the next foregoing Tract about Fluids contiguous to other Fluids.* Ibid. No. CXXXII. p. 799.

He had been for many years a director of the *East-India* company, and greatly instrumental in procuring the charter of it, an abstract of which is extant among his papers. But his health now not permitting him to attend the committee of that company, he wrote the following letter to *Robert Thompson*, Esq; in order to recommend to them the propagation of the Gospel in those countries, where their commerce gave them an opportunity.

Pall-Mall, March 5, 1676-7.

" Worthy Sir,

" THE continuance of my distemper not permitting me to wait on you, as I gladly " would, in *London*, you will, I doubt not, give " me leave to present you in this paper some of " the things, that I would more fully have acquainted you with by word of mouth. You " may remember, that when my health, and the " kindness of the *East-India* company, allowed me " to sit in your committee, I ventured to make " a motion, that some course might be thought " on of doing some considerable thing for the " propagation of the gospel among the natives, " in whose countries we have flourishing factories.

" And

"And indeed it ſeemed to me very fit, that we, "whoſe endeavours God had of late ſo ſignally "proſpered, ſhould pay him ſome little acknow- "ledgment of his many bleſſings, and that re- "membring ourſelves to be Chriſtians, as well as "merchants, we ſhould attempt to bring thoſe "countries ſome ſpiritual good things, whence we "ſo frequently brought back temporal ones. And "I was ſomewhat the more concerned to ſucceed "in the motion I made, becauſe I wiſhed the "company were enough to deſire, that they in "particular ſhould have the honour to ſilence the "reproaches of thoſe, who I wiſh had leſs pretence "to upbraid the Proteſtants, and among them the "Engliſh, with the neglect of making proſelytes "to the Chriſtian religion; to the advancement "of which I endeavoured to excite you by what "hath been done by the Dutch company in *Bata-* "*via*. I muſt do and have done thoſe, that were "preſent at my propoſal, the right to ſay, that "they gave me a very favourable hearing, and "readily conſented to take the matter into further "conſideration. But as my ſickneſs diſabled me "from going ſo far as the *Eaſt-India* houſe, ſo "other accidents have from time to time been able "to produce ſuch delays, that notwithſtanding the "interpoſition of my lord *Berkeley*, (who uſes not "to be backward, when good is to be done,) the "good intentions of the company have hitherto "proved ineffectual. But I am glad to find, that "now the conſideration of that buſineſs is to be "ſeriouſly reſumed among you, my lord *Berkeley* "having yeſterday done me the honour to viſit "me, and diſcourſe with me about this affair. "And ſince I cannot wait on you myſelf, and "have acquainted him with ſome of my thoughts, "I ſhall deſire you at your next meeting to con-

" fer with his lordſhip about the ways of promot-
" ing ſo good a work. And I the rather ſolicit
" this now, becauſe ſince the beginning of this
" week I received the honour of a viſit from the
" biſhop of *Oxford*, with whom diſcourſing of
" divers things relating to religion, his lordſhip
" ſeemed to wonder, that the *Eaſt-India* company
" ſhould do nothing towards the ſpreading of it
" in the country they trade to, and ſeemed un-
" willing to ſend able men thither for miniſters.
" And though I took this occaſion to right the
" company by ſhewing him, that he had been
" miſinformed, and to relate to him the matter
" of fact, which I could do in great part upon my
" own knowledge; yet his lordſhip having aſſured
" me, that in caſe reaſonable encouragement were
" given, ſober and learned men ſhould be fitted
" in the univerſity, to be ſent into *India*, and fur-
" niſhed, not only with the Arabic tongue, but,
" if it were deſired, with arithmetic and other
" qualifications fit to recommend them, and make
" them appear more conſiderable, and grow more
" uſeful in thoſe parts; I cannot but take this
" riſe to ſolicit you to reſume in good earneſt the
" thoughts of ſpeedily doing ſomething worthy
" of the famous *Eaſt-India* company of *England*.
" The way I leave to your wiſdoms, not deſpairing,
" that if but ſo much be done at firſt, as may be
" carried without conſiderable oppoſition, the
" goodneſs of the work will procure a bleſſing on
" it, that will make it proſperous; and the ſucceſs
" will invite perhaps many more than your own
" company to be co-operators with the truth, and
" contributors to the enlarging the Pale of the
" Chriſtian church. If you ſhould now aſk me,
" what is to be done with any ſtock or income,
" that may be raiſed for ſuch an uſe? I ſhall
" willingly

" willingly at large acquaint you with my poor " thoughts the next time you paſs this way; and " in the mean time give me leave to put you in " mind of what is done in the corporation (where- " of you are a member) for goſpelizing (as they " phraſe it) the natives of *New England*. For the " ways we employ to convert and inſtruct them " are chiefly theſe. Firſt, We have cauſed the " holy ſcripture and ſome few choice practical " books to be tranſlated into their chiefeſt lan- " guage. To which you may add the publiſhing " of a ſolid but civilly penned confutation of the " authentic books, wherein the Bramins religion " is contained.

" NEXT, we have cauſed ſome of ours to learn " their tongue; and having convinced them of " their idolatry and the ſinfulneſs of their courſes, " to preach to them, and to catechiſe them in " their own language.

" AND then we breed ſome of their hopeful for- " ward youths to that knowledge of the Engliſh " tongue and European learning, that they may " afterwards be able to confute the idolatrous " prieſts, and convert and inſtruct their own coun- " trymen.

" OTHER methods we do on ſome occaſions " employ; but to particulariſe and inſiſt on them " would require more than a letter; and this, I " fear, is grown too tedious already, and there- " fore I ſhall here conclude it with my hearty " wiſhes, that, eſpecially at a time, when the " company wants not enemies, they may be di- " rected to do a thing ſo good in itſelf, and of ſo " good a report, as that, which has been recom- " mended to you, I hope, by your own piety, " as well as by the motion of, Sir, your moſt " affectionate friend, and moſt humble ſervant,

" ROBERT BOYLE.

His zeal for the intereſt of the Chriſtian religion appeared the year following in another remarkable inſtance; for he was at the expence of printing five hundred copies of the *four Goſpels*, and *the Acts of the Apoſtles*, in the Malayan tongue, under the direction of Mr. (afterwards Dr.) *Thomas Hyde*, keeper of the Bodleian library. This work was publiſhed at *Oxford* in 1677 in 4to, with this title: *Jang Ampat Evangelia derri tuan Kitu Jeſu Chriſti duan Beerboutan derri jang Apoſtoli Borſacti Berſalin dallam Baſſa Malayo.* That is, *The four Goſpels of our Lord Jeſus Chriſt, and the Acts of the holy Apoſtles, tranſlated into the Malayan tongue:* with a preface by Dr. *Thomas Marſhal*, rector of *Lincoln* college in *Oxford*, and afterwards dean of *Glouceſter*, and with the following dedication by Mr. *Hyde*, which I ſhall here inſert from the original.

"*To the honourable* Robert Boyle, *Eſq; one* "*of the directors of the* Eaſt-India *com-*"*pany for trade, and governour of the* "*corporation for the propagation of the* "*Goſpel and the converſion of the American* "*natives in* New England.

"SIR,

"YOUR pious deſign of printing the holy "Goſpels, and the Acts of the Apoſtles, in "the Malayan tongue, being by God's aſſiſtance "finiſhed, at your coſt and charge, as correct as "all my diligence could poſſibly make it, the "work now done returns to you, offering itſelf to "be employed to that good end and purpoſe, for "which you intended it, *viz.* for God's glory, "and the good of the ſouls of thoſe poor Indians,

"to

" to whom the glorious rays of the Goſpel have
" not yet ſhone, or at leaſt in a very obſcure
" manner; that ſo by this means they, who ſat
" in darkneſs and the ſhadow of death, may have
" great light riſen. And the converſion of ſuch
" miſerable infidels from their groſs idolatry, and
" the gaining of ſouls to heaven; being a work
" ſo very acceptable to both God and man; we
" well hope, that this your good example will
" prove an incitement to others of our nation, to
" procure and promote ſuch like laudable under-
" takings. But your charity is not limited only
" to the Eaſt-Indians, for the poor ſouls of the
" Weſt-Indians are alſo bound to bleſs you, you
" being the head of that corporation, which is
" eſtabliſhed by his majeſty at *London* for the re-
" ceiving and diſpoſing of the benefactions of
" well-minded Chriſtians (to which the ſaid cor-
" poration do uſually add of their own no ſmall
" mites) to be tranſmitted to the commiſſioners of
" the united colonies in *New England*, and there
" to be employed for the propagation of the
" Goſpel. By the ſole coſt and care of this fore-
" mentioned corporation it was, that the whole
" bible, and ſome other books of piety, were tranſ-
" lated into the language of *New England* by the
" pains of the reverend Mr. *Eliot*, who made a
" grammar, now alſo in print, for that language,
" and who daily labours in the work of the Goſpel
" there, he having an honorary ſtipend continued
" to him by the abovementioned corporation.
" Wherefore if charity is not grown too cold in
" theſe northerly parts of the world, thoſe things,
" which have been already performed, may juſtly
" be expected to be ſufficient incentives to kindle
" and actuate the zeal of many good people, by
" whoſe pious endeavours, in the promoting of

"the Goſpel of our Lord Jeſus Chriſt, all the "ends of the earth may in time ſee the ſalvation "of God. All, which I have now to add, is, that "God in his goodneſs would be pleaſed to con- "tinue to you long life and happineſs; that ſo "you may chearfully go on to finiſh the good "works, which you have begun, and which you "farther intend; which is the hearty prayer of,

Sept. 14, 1677, from the publick library in *Oxford*.

"SIR,

"Your very obliged friend,

"and moſt humble ſervant,

"THOMAS HYDE."

THE ſame year there was publiſhed at *Geneva*, in 4to, a collection of ſome of our author's works, which had been tranſlated into Latin, under this title, ROBERTI BOYLE, *nobiliſſimi Angli, & Societatis Regiæ digniſſimi ſocii, opera varia*; of which collection Mr. *Oldenburg*, in the *Philoſophical Tranſactions*, No. CXXX. p. 766, 767, gives the following account: 1. That it was publiſhed without the conſent or knowledge of the author. 2. That the year in the frontiſpiece of it is one and the ſame, as if the ſeveral treatiſes contained in this volume had been publiſhed in one year; and that the enumeration of thoſe treatiſes, made in the catalogue of this Latin edition, is not according to the time, wherein they were firſt printed; for the *firſt* of the books mentioned in that catalogue was publiſhed in Engliſh in 1660, the *fifth* and *ſixth* in 1661, the *ſecond* in 1662, the *ſeventh* in 1664, the *fourth* in 1666, the *third* in 1670, the *eighth* in 1671, the *tenth* in 1672, and the *ninth* in 1673, "ſo prepoſterouſly are thoſe books ranged in this

"catalogue

" catalogue and volume, which the reader was to " be informed of, that by comparing the ſeveral " true dates of the firſt edition of this author's " works with the books of others ſince printed, " the priority of the experiments, and conſidera- " tions reſpectively contained in them, may be " truly ſtated." 3. That there is no mention made in the general title, nor in any advertiſement, that theſe books are all of them tranſlations out of Engliſh, in which tongue the author wrote them all. 4. That the treatiſe of the *Origin of Forms and Qualities*, and that of *ſubordinate Forms*, are both omitted in this volume, though they were printed even in Latin, at *Oxford*, ever ſince the year 1669, as they had been printed in Engliſh in 1667.

IN 1678 Mr. *Boyle*'s *Short Memorial of ſome Obſervations made upon an artificial Subſtance, that ſhines without any preceding Illuſtration*, was publiſhed in Mr. *Hook*'s *Lectiones Cutler.* No. II. p. 57. and his *Hiſtorical Account of a Degradation of Gold made by an Anti-Elixir, a ſtrange chemical Narrative*, was printed at *London* in 4to, and reprinted there in 1739 in 4to. In this piece, *Pyrophilus*, one of the interlocutors of the Dialogue, obſerves, that though he could not affirm, that " he had " with his own hands made *projection* (as chemiſts " are wont to call the ſudden tranſmutation made " by a ſmall quantity of their admirable elixir) yet " I can affirm, *ſays he*, much of what hath been " urged for the poſſibility of ſuch a ſudden change " of a metalline body by a way, which, I pre- " ſume, will ſurpriſe you. For to make it more " credible, that other metals are capable of being " graduated or exalted into gold, by way of *pro-* " *jection*, I will relate to you, that *by the like way* " gold has been degraded or imbaſed. If, *con-*

" *tinues*

" *times be*, it can be made appear, that art has " produced an *anti-elixir*, or agent, that is able in " a very ſhort time to work a very notable, though " deteriorating change upon a metal, in propor- " tion to which its quantity is very inconſidera- " ble; I ſee not, why it ſhould be thought im- " poſſible, that art may alſo make a *true elixir*, or " powder, capable of ſpeedily tranſmuting a great " proportion of a baſer metal into ſilver or gold; " eſpecially if it be conſidered, that thoſe, that " treat of theſe *arcana*, confeſs, that it is not every " matter, which may be juſtly called the *Philoſo-* " *phers Stone*, that is able to tranſmute other me- " tals in vaſt quantities, ſince ſeveral of theſe wri- " ters (and even *Lully* himſelf) make differing or- " ders or degrees of *elixir*, and acknowledge, that " a medicine or tincture of the firſt or loweſt or- " der will not tranſmute above ten times its " weight of an imperfect metal." However the celebrated chemiſt *Otto Tachenius* was of opinion, that notwithſtanding what is related in this narra- tive, ſalt of tartar is capable of recovering gold thus debaſed to its original purity.

THE regard, which the great *Newton* had for Mr. *Boyle*, will appear from a very curious letter, which the former wrote to him, explaining his ſentiments upon one of the moſt abſtruſe points of philoſophy, with reſpect to the ætherial me- dium, which in his *Optics* he propoſes as the me- chanical cauſe of gravitation. This letter having never before ſeen the light, will be proper to be inſerted here.

" Honoured Sir,

" I HAVE ſo long deferred to ſend you my " thoughts about the phyſical qualities we " ſpake of, that did I not eſteem myſelf obliged

" by

" by promiſe, I think I ſhould be aſhamed to ſend " them at all. The truth is, my notions about " things of this kind are ſo indigeſted, that I am " not well ſatisfied my ſelf in them; and what I " am not ſatisfied in, I can ſcarce eſteem fit to be " communicated to others; eſpecially in natural " philoſophy, where there is no end of fancying. " But becauſe I am indebted to you, and yeſterday " met with a friend, Mr. *Maulyverer*, who told " me he was going to *London*, and intended to " give you the trouble of a viſit, I could not " forbear to take the opportunity of conveying " this to you by him.

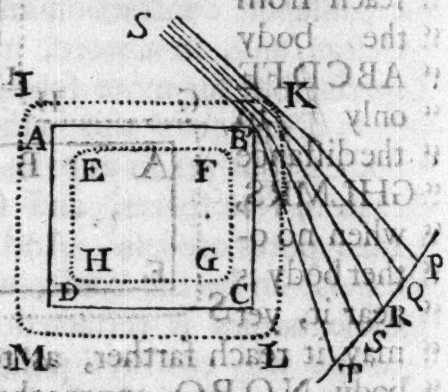
" IT being only an explication of qualities, " which you deſire of me, I ſhall ſet down my " apprehenſions in the form of ſuppoſitions, as " follows. And firſt, I ſuppoſe, that there is dif- " fuſed through all places an ætherial ſubſtance, " capable of contraction and dilatation, ſtrongly " elaſtic, and, in a word, much like air in all re- " ſpects, but far more ſubtile.

" 2. I SUPPOSE this æther pervades all groſs " bodies, but yet ſo as to ſtand rarer in their pores " than in free ſpaces, and ſo much the rarer, as " their pores are leſs. And this I ſuppoſe (with " others) to be the cauſe, why light incident on " thoſe bodies is refracted towards the perpendi- " cular; why two well poliſhed metals cohere in a " receiver exhauſted of air; why ☿ ſtands ſome- " times up to the top of a glaſs pipe, though much " higher than 30 inches; and one of the main " cauſes, why the parts of all bodies cohere; alſo " the cauſe of filtration, and of the riſing of wa- " ter in ſmall glaſs pipes above the ſurface of the " ſtagnating water they are dipped into: for I ſuſ- " pect the æther may ſtand rarer, not only in the " inſenſible pores of bodies, but even in the very

" ſenſible

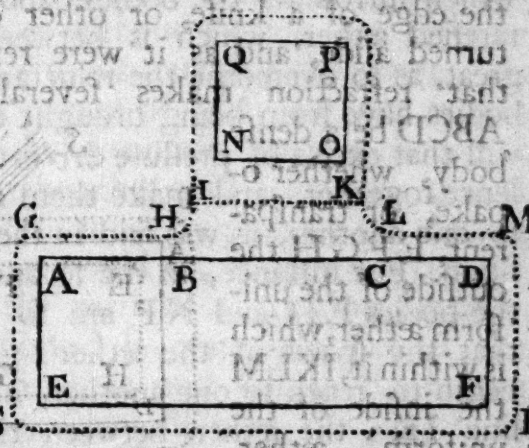
" ſenſible cavities of thoſe pipes. And the ſame " principle may cauſe menſtruums to pervade with " violence the pores of the bodies they diſſolve, " the ſurrounding æther, as well as the atmo- " ſphere, preſſing them together.

" 3. I ſuppoſe the rarer æther within bodies, " and the denſer without them, not to be termi- " nated in a mathematical ſuperficies, but to grow " gradually into one another; the external æther " beginning to grow rarer, and the internal to " grow denſer, at ſome little diſtance from the " ſuperficies of the body, and running through " all intermediate degrees of denſity in the inter- " mediate ſpaces. And this may be the cauſe, " why light, in *Grimaldo*'s experiment, paſſing by " the edge of a knife, or other opake body, is " turned aſide, and as it were refracted, and by " that refraction makes ſeveral colours. Let " ABCD be a denſe " body, whether o- " pake, or tranſpa- " rent, EFGH the " outſide of the uni- " form æther, which " is within it, IKLM " the inſide of the " uniform æther, " which is without " it; and conceive the æther, which is between " EFGH and IKLM, to run through all in- " termediate degrees of denſity between that of " the two uniform æthers on either ſide. This " being ſuppoſed, the rays of the ſun SB, SK, " which paſs by the edge of this body between B " and K, ought in their paſſage through the une- " qually denſe æther there, to receive a ply from " the denſer æther, which is on that ſide towards " K,



" K, and that the more, by how much they paſs " nearer to the body, and thereby to be ſcattered " through the ſpace PQRST, as by experience " they are found to be. Now the ſpace between " the limits EFGH and IKLM, I ſhall call " the ſpace of the æther's graduated rarity.

" 4. When two bodies moving towards one " another come near together, I ſuppoſe the æther " between them to grow rarer than before, and " the ſpaces of its graduated rarity to extend fur- " ther from the ſuperficies of the bodies towards " one another; and this, by reaſon, that the æther " cannot move and play up and down ſo freely in " the ſtrait paſſage between the bodies, as it could " before they came ſo near together. Thus, if the " ſpace of the " æther's gra- " duated rarity " reach from " the body " ABCDFE " only to " the diſtance " GHLMRS, " when no o- " ther body is " near it, yet



" may it reach farther, as to IK, when another " body NOPQ approaches: and as the other " body approaches more and more, I ſuppoſe the " æther between them will grow rarer and rarer.

" THESE ſuppoſitions I have ſo deſcribed, as if " I thought the ſpaces of graduated æther had " preciſe limits, as is expreſſed at IKLM in the " firſt figure, and GMRS in the ſecond; for " thus I thought I could better expreſs my ſelf. " But really I do not think they have ſuch preciſe

" limits,

" limits, but rather decay inſenſibly, and, in ſo de-
" caying, extend to a much greater diſtance, than
" can eaſily be believed, or need be ſuppoſed.

" 5. Now from the fourth ſuppoſition it fol-
" lows, that when two bodies approaching one
" another, come ſo near together, as to make the
" æther between them begin to rarefy, they will
" begin to have a reluctance from being brought
" nearer together, and an endeavour to recede
" from one another: which reluctance and en-
" deavour will encreaſe, as they come nearer to-
" gether, becauſe thereby they cauſe the interja-
" cent æther to rarefy more and more. But at
" length, when they come ſo near together, that
" the exceſs of preſſure of the external æther,
" which ſurrounds the bodies, above that of the
" rarefied æther, which is between them, is ſo
" great, as to overcome the reluctance, which the
" bodies have from being brought together; then
" will that exceſs of preſſure drive them with vio-
" lence together, and make them adhere ſtrongly
" to one another, as was ſaid in the ſecond ſuppo-
" ſition. For inſtance, in the ſecond figure, when
" the bodies ED and NP are ſo near together,
" that the ſpaces of the æther's graduated rarity
" begin to reach to one another, and meet in the
" line IK; the æther between them will have
" ſuffered much rarefaction, which rarefaction re-
" quires much force, that is, much preſſing of
" the bodies together: and the endeavour, which
" the æther between them has to return to its for-
" mer natural ſtate of condenſation, will cauſe the
" bodies to have an endeavour of receding from
" one another. But on the other hand, to coun-
" terpoiſe this endeavour, there will not yet be
" any exceſs of denſity of the æther, which ſur-
" rounds the bodies, above that of the æther,

" which

" which is between them at the line I K. But if
" the bodies come nearer together, ſo as to make
" the æther in the mid-way-line I K grow rarer
" than the ſurrounding æther, there will ariſe
" from the exceſs of denſity of the ſurrounding
" æther a compreſſure of the bodies towards one
" another: which, when by the nearer approach
" of the bodies it becomes ſo great, as to over-
" come the aforeſaid endeavour the bodies have
" to recede from one another, they will then go
" towards one another, and adhere together.
" And, on the contrary, if any power force them
" aſunder to that diſtance, where the endeavour to
" recede begins to overcome the endeavour to ac-
" cede, they will again leap from one another.
" Now hence I conceive it is chiefly, that a fly
" walks on water without wetting her feet, and
" conſequently without touching the water; that
" two poliſhed pieces of glaſs are not without
" preſſure brought to contact, no, not though the
" one be plain, the other a little convex; that the
" particles of duſt cannot by preſſing be made to
" cohere, as they would do, if they did but fully
" touch; that the particles of tinging ſubſtances
" and ſalts diſſolved in water do not of their
" own accord concrete and fall to the bottom,
" but diffuſe themſelves all over the liquor, and
" expand ſtill more, if you add more liquor to
" them. Alſo, that the particles of vapours, ex-
" halations, and air, do ſtand at a diſtance from
" one another, and endeavour to recede as far
" from one another, as the preſſure of the incum-
" bent atmoſphere will let them: for I conceive
" the confuſed maſs of vapours, air, and exhala-
" tions, which we call the atmoſphere, to be no-
" thing elſe but the particles of all ſorts of bodies,
" of which the earth conſiſts, ſeparated from one

" another, and kept at a diſtance, by the ſaid " principle.

" FROM theſe principles the actions of men- " ſtruums upon bodies may be thus explained. " Suppoſe any tinging body, as cochineal, or log- " wood, be put into water; ſo ſoon as the water " ſinks into its pores and wets on all ſides any " particle, which adheres to the body only by " the principle in the ſecond ſuppoſition, it takes " off, or at leaſt much diminiſhes the efficacy of " that principle to hold the particle to the body, " becauſe it makes the æther on all ſides the par- " ticle to be of a more uniform denſity than be- " fore. And then the particle being ſhaken off, " by any little motion, floats in the water, and with " many ſuch others makes a tincture; which tinc- " ture will be of ſome lively colour, if the par- " ticles be all of the ſame ſize and denſity; other- " wiſe of a dirty one. For the colours of all na- " tural bodies whatever ſeem to depend on no- " thing but the various ſizes and denſities of their " particles; as I think you have ſeen deſcribed by " me more at large in another paper. If the par- " ticles be very ſmall (as are thoſe of ſalts, vi- " triols, and gums) they are tranſparent; and as " they are ſuppoſed bigger and bigger, they put " on theſe colours in order, black, white, yellow, " red; violet, blue, pale green, yellow, orange, " red; purple, blue, green, yellow, orange, red, " *&c.* as is diſcerned by the colours, which appear " at the ſeveral thickneſſes of very thin plates of " tranſparent bodies. Whence, to know the cauſes " of the changes of colours, which are often made " by the mixtures of ſeveral liquors, it is to be " conſidered, how the particles of any tincture " may have their ſize or denſity altered by the " infuſion of another liquor.

" WHEN

" WHEN any metal is put into common water,
" the water cannot enter into its pores, to act on
" it and diſſolve it. Not that water conſiſts of
" too groſs parts for this purpoſe, but becauſe it
" is unſociable to metal. For there is a certain
" ſecret principle in nature, by which liquors are
" ſociable to ſome things, and unſociable to o-
" thers. Thus water will not mix with oil, but
" readily with ſpirit of wine, or with ſalts. It
" ſinks alſo into wood, which quickſilver will
" not; but quickſilver ſinks into metals, which,
" as I ſaid, water will not. So aqua fortis diſ-
" ſolves ☽, not ☉, aqua regis ☉, not ☽, *&c.*
" But a liquor, which is of itſelf unſociable to a
" body, may, by the mixture of a convenient
" mediator, be made ſociable. So molten lead,
" which alone will not mix with copper, or with
" regulus of Mars, by the addition of tin is made
" to mix with either. And water, by the me-
" diation of ſaline ſpirits, will mix with metal.
" Now when any metal is put in water impreg-
" nated with ſuch ſpirits, as into aqua fortis, aqua
" regis, ſpirit of vitriol, or the like, the particles
" of the ſpirits, as they, in floating in the water,
" ſtrike on the metal, will by their ſociableneſs
" enter into its pores, and gather round its outſide
" particles, and, by advantage of the continual
" tremor the particles of the metal are in, hitch
" themſelves in by degrees between thoſe particles
" and the body, and looſen them from it; and
" the water entering into the pores together with
" the ſaline ſpirits, the particles of the metal will
" be thereby ſtill more looſed, ſo as, by that mo-
" tion the ſolution puts them into, to be eaſily
" ſhaken off, and made to float in the water: the
" ſaline particles ſtill encompaſſing the metallic
" ones as a coat or ſhell does a kernel, after the

" manner expreſſed in the annexed
" figure. In which figure I have made
" the particles round, though they may
" be cubical, or of any other ſhape.

" If into a ſolution of metal thus made be
" poured a liquor, abounding with particles, to
" which the former ſaline particles are more ſocia-
" ble than to the particles of the metal (ſuppoſe
" with particles of ſalt of tartar) then ſo ſoon as
" they ſtrike on one another in the liquor, the ſa-
" line particles will adhere to thoſe more firmly
" than to the metalline ones, and by degrees be
" wrought off from thoſe to encloſe theſe. Sup-
" poſe A a metalline particle, encloſed
" with ſaline ones of ſpirit of nitre,
" E a particle of ſalt of tartar, con-
" tiguous to two of the particles of
" ſpirit of nitre b and c, and ſup-
" poſe the particle E is impelled by
" any motion towards d, ſo as to roll
" about the particle c, till it touch the particle d,
" the particle b adhering more firmly to E than
" to A, will be forced off from A. And by the
" ſame means the particle E, as it rolls about A,
" will tear off the reſt of the ſaline particles from
" A, one after another, till it has got them all,
" or almoſt all, about itſelf. And when the me-
" tallic particles are thus diveſted of the nitrous
" ones, which, as a mediator between them and
" the water, held them floating in it; the alcali-
" zate ones crouding for the room the metallic
" ones took up before, will preſs theſe towards
" one another, and make them come more eaſily
" together: ſo that by the motion they con-
" tinually have in the water, they ſhall be made
" to ſtrike on one another, and then, by means of
" the principle in the ſecond ſuppoſition, they

" will

" will cohere and grow into clusters, and fall down " by their weight to the bottom, which is called " precipitation.

" IN the solution of metals, when a particle " is loosing from the body, so soon as it gets to " that distance from it, where the principle of re- " ceding described in the fourth and fifth suppo- " sitions begins to overcome the principle of ac- " ceding, described in the second supposition the " receding of the particle will be thereby accele- " rated; so that the particle shall as it were with " violence leap from the body, and putting the " liquor into a brisk agitation, beget and pro- " mote that heat we often find to be caused in " solutions of metals. And if any particle hap- " pen to leap off thus from the body, before it " be surrounded with water, or to leap off with " that smartness, as to get loose from the water; " the water, by the principle in the fourth and " fifth suppositions, will be kept off from the par- " ticle, and stand round about it, like a spherically " hollow arch, not being able to come to a full " contact with it any more. And several of these " particles afterwards gathering into a cluster, so " as by the same principle to stand at a distance " from one another, without any water between " them, will compose a bubble. Whence I sup- " pose it is, that in brisk solutions there usually " happens an ebullition.

" THIS is one way of transmuting gross com- " pact substances into aerial ones. Another way " is, by heat. For as fast as the motion of heat " can shake off the particles of water from the " surface of it, those particles, by the said princi- " ple, will float up and down in the air, at a di- " stance both from one another, and from the par- " ticles of air, and make that substance we call

" vapour. Thus I ſuppoſe it is, when the parti-
" cles of a body are very ſmall (as I ſuppoſe thoſe
" of water are) ſo that the action of heat alone
" may be ſufficient to ſhake them aſunder. But
" if the particles be much larger, they then re-
" quire the greater force of diſſolving menſtruums,
" to ſeparate them, unleſs by any means the par-
" ticles can be firſt broken into ſmaller ones. For
" the moſt fixed bodies, even gold itſelf, ſome
" have ſaid will become volatile, only by breaking
" their parts ſmaller. Thus may the volatility and
" fixedneſs of bodies depend on the different ſizes
" of their parts.

" AND on the ſame difference of ſize may de-
" pend the more or leſs permanency of aerial
" ſubſtances, in their ſtate of rarefaction. To un-
" derſtand this, let us ſup-
" poſe ABCD to be a
" large piece of any metal,
" EFGH the limit of
" the interior uniform æ-
" ther, and K a part of
" the metal at the ſuper-
" ficies AB. If this part or particle K be ſo lit-
" tle, that it reaches not to the limit EF, it is
" plain, that the æther at its centre muſt be leſs
" rare, than if the particle were greater; for were
" it greater, its centre would be further from the
" ſuperficies AB, that is, in a place, where the
" æther (by ſuppoſition) is rarer. The leſs the
" particle K therefore, the denſer the æther at its
" centre, becauſe its centre comes nearer to the
" edge AB, where the æther is denſer than within
" the limit EFGH. And if the particle were
" divided from the body, and removed to a di-
" ſtance from it, where the æther is ſtill denſer,
" the æther within it muſt proportionally grow
" denſer.

" denſer. If you conſider this, you may appre-
" hend, how by diminiſhing the particle, the ra-
" rity of the æther within it will be diminiſhed,
" till between the denſity of the æther without,
" and the denſity of the æther within it, there be
" little difference; that is, till the cauſe be almoſt
" taken away, which ſhould keep this and other
" ſuch particles at a diſtance from one another.
" For that cauſe, explained in the fourth and fifth
" ſuppoſitions, was the exceſs of denſity of the
" external æther above that of the internal. This
" may be the reaſon then, why the ſmall particles
" of vapours eaſily come together, and are reduced
" back into water, unleſs the heat, which keeps
" them in agitation, be ſo great as to diſſipate
" them as faſt as they come together: but the
" groſſer particles of exhalations raiſed by fermen-
" tation keep their aerial form more obſtinately,
" becauſe the æther within them is rarer.

" NOR does the ſize only, but the denſity of
" the particles alſo, conduce to the permanency
" of aerial ſubſtances. For the exceſs of denſity
" of the æther without ſuch particles above that
" of the æther within them is ſtill greater. Which
" has made me ſometimes think, that the true
" permanent air may be of a metallic original;
" the particles of no ſubſtances being more denſe
" than thoſe of metals. This, I think, is alſo fa-
" voured by experience, for I remember I once
" read in the Philoſophical Tranſactions, how M.
" *Huygens* at *Paris* found, that the air made by
" diſſolving ſalt of tartar would in two or three
" days time condenſe and fall down again, but
" the air made by diſſolving a metal continued
" without condenſing or relenting in the leaſt. If
" you conſider then, how by the continual fermen-
" tations made in the bowels of the earth there

" are aerial ſubſtances raiſed out of all kinds of " bodies, all which together make the atmoſphere, " and that of all theſe the metallic are the moſt " permanent, you will not, perhaps, think it ab- " ſurd, that the moſt permanent part of the at- " moſphere, which is the true air, ſhould be con- " ſtituted of theſe; eſpecially ſince they are the " heavieſt of all other, and ſo muſt ſubſide to " the lower parts of the atmoſphere, and float up- " on the ſurface of the earth, and buoy up the " lighter exhalation and vapours to float in greateſt " plenty above them. Thus, I ſay, it ought to " be with the metallic exhalations raiſed in the " bowels of the earth by the action of acid men- " ſtruums, and thus it is with the true perma- " nent air; for this, as in reaſon it ought to be " eſteemed the moſt ponderous part of the at- " moſphere, becauſe the loweſt, ſo it betrays its " ponderoſity, by making vapours aſcend readily " in it, by ſuſtaining miſts and clouds of ſnow, " and by buoying up groſs and ponderous ſmoke. " The air alſo is the moſt groſs unactive part of " the atmoſphere, affording living things no nou- " riſhment, if deprived of the more tender exha- " lations and ſpirits, that float in it: and what " more unactive and remote from nouriſhment " than metallic bodies?

" I SHALL ſet down one conjecture more, which " came into my mind now as I was writing this " letter. It is about the cauſe of gravity. For " this end I will ſuppoſe æther to conſiſt of parts " differing from one another in ſubtilty by inde- " finite degrees: that in the pores of bodies there " is leſs of the groſſer æther, in proportion to the " finer, than in open ſpaces; and conſequently, " that in the great body of the earth there is " much leſs of the groſſer æther, in proportion

" to

" to the finer, than in the regions of the air: and " that yet the groſſer æther in the air affects the " upper regions of the earth, and the finer æther " in the earth the lower regions of the air, in ſuch " a manner, that from the top of the air to the " ſurface of the earth, and again from the ſurface " of the earth to the centre thereof, the æther is " inſenſibly finer and finer. Imagine now any " body ſuſpended in the air, or lying on the earth: " and the æther being by the hypotheſis groſſer " in the pores, which are in the upper parts of the " body, than in thoſe which are in its lower parts, " and that groſſer æther being leſs apt to be lodg- " ed in thoſe pores, than the finer æther below, it " will endeavour to get out and give way to the " finer æther below, which cannot be without the " bodies deſcending to make room above for it to " go out into.

" FROM this ſuppoſed gradual ſubtilty of the " parts of æther ſome things above might be fur- " ther illuſtrated, and made more intelligible; " but by what has been ſaid, you will eaſily diſ- " cern, whether in theſe conjectures there be any " degree of probability, which is all I aim at. " For my own part, I have ſo little fancy to things " of this nature, that, had not your encourage- " ment moved me to it, I ſhould never, I think, " have thus far ſet pen to paper about them. " What is amiſs therefore, I hope, you will the " more eaſily pardon in

Cambridge, Feb. 28, 1678-9. " Your moſt humble ſervant,

" and honourer,

" ISAAC NEWTON.

THIS letter of our incomparable *Newton* may perhaps receive ſome illuſtration from another [a], which he wrote a few years before to Mr. *Oldenburg*, and was as follows.

"SIR,

"I RECEIVED both yours, and thank you "for your care in diſpoſing thoſe things be- "tween me and Mr *Linus*. I ſuppoſe his friends "cannot blame you at all for printing his firſt let- "ter, it being written, I believe, for that end, "and they never complaining of the printing of "that, but of the not printing that, which fol- "lowed, which I take myſelf to have been *per* " *accidens* the occaſion of, by refuſing to anſwer "him. And though I think I may truly ſay, I "was very little concerned about it, yet I muſt "look upon it as the reſult of your kindneſs to "me, that you was unwilling to print it without "an anſwer.

"As to the paper of Obſervations, which you "move in the name of the Society to have printed, "I cannot but return them my hearty thanks for "the kind acceptance they meet with there, and "know not how to deny any thing, which they "deſire ſhould be done. Only I think it will "be beſt to ſuſpend the printing of them for a "while, becauſe I have ſome thoughts of writing "ſuch another ſet of Obſervations for determin- "ing the manner of the productions of colours by " the priſm, which, if done at all, ought to pre- "cede that now in your hands, and will do beſt to "be joined with it. But this I cannot do pre- "ſently, by reaſon of ſome incumbrances lately "put upon me by ſome friends, and ſome other "buſineſs of my own, which at preſent almoſt "take up my time and thoughts.

[a] In the poſſeſſion of *William Jones*, Eſq.

"THE

"THE additions, that I intended, I think I "must, after putting you to ſo long expectations, "diſappoint you in; for it puzzles me how to "connect them with what I ſent you; and if I "had thoſe papers, yet I doubt the things I in-"tended will not come in ſo freely as I thought "they might have done. I could ſend them de-"ſcribed without dependance on thoſe papers; "but I fear I have already troubled your Society "and yourſelf too much with my ſcribbling, and "ſo ſuppoſe it may do better to defer them till "another ſeaſon. I have therefore at preſent only "ſent you two or three alterations, though not of "ſo great moment, that I need have ſtaid you for "them; and they are theſe:

"WHERE I ſay, that *the frame of nature may "be nothing but æther condenſed by a fermental prin-"ciple*, inſtead of theſe words write, that it may "be nothing but various contextures of ſome cer-"tain ætherial ſpirits or vapours condenſed, as it "were, by præcipitation, much after the manner, "that vapours are condenſed into water, or ex-"halations into groſſer ſubſtances, though not "ſo eaſily condenſable; and after condenſation "wrought into various forms, at firſt by the im-"mediate hand of the Creator, and ever ſince by "the power of nature, who, by virtue of the com-"mand, *Increaſe and multiply*, became a complete "imitator of the copies ſet her by the Protoplaſt. "Thus perhaps may all things be originated from "æther, *&c.*

"A LITTLE after, when I ſay, the ætherial ſpi-"rit may be *condenſed in fermenting or burning bo-"dies, or otherwiſe inſpiſſated in the pores of the "earth to a tender matter, which may be, as it were, "the* ſuccus nutritius *of the earth, or primary ſub-"ſtance, out of which things generable grow*: in-

"ſtead

" ſtead of this you may write, that that ſpirit " may be condenſed in fermenting or burning bo- " dies, or otherwiſe coagulated in the pores of the " earth and water into ſome kind of humid active " matter, for the continual uſes of nature, ad- " hering to the ſides of thoſe pores after the " manner, that vapours condenſe on the ſides of a " veſſel.

" In the ſame paragraph there is, I think, a " parentheſis, in which I mention volatile ſalt-pe- " tre. Pray ſtrike out that parentheſis, leſt it " ſhould give offence to ſomebody.

" Alſo where I relate the experiment of little " papers made to move variouſly with a glaſs " rubbed, I would have all that ſtruck out, which " follows about trying the experiment with leaf- " gold.

" Sir, I am interrupted by a viſit, and ſo muſt " in haſte break off.

" Yours

Jan. 25, 1675-6.

" Is. Newton."

But to return to Mr. *Boyle*, in the year 1680, he gave the world the following tracts, *viz. The Aerial Noctiluca: or ſome new Phænomena, and a proceſs of a factitious ſelf-ſhining ſubſtance*; London, in 8vo. *A new Lamp*, printed in Mr. *Hooke*'s *Philoſophical Collections*, No. II. p. 33. and *Divers Experiments and Notes about the producibleneſs of chemical Principles*, ſubjoined to the ſecond edition of his *Sceptical Chemiſt*, at *Oxford* 1680, in 8vo.

The Royal Society, of which he had been ſo long one of the greateſt ornaments, now thought proper at their annual election on St. *Andrew*'s day, November 30, this year, to chooſe him for their

their preſident. But after a mature conſideration he excuſed himſelf from accepting that poſt, for reaſons, which ſhew his extreme tenderneſs and delicacy in all matters of conſcience, and were repreſented by him in the following letter to Mr. *Hooke*.

" *Pall-Mall*, Dec. 18, 1680.

" SIR,

" THOUGH ſince I laſt ſaw you, I met " with a lawyer, who has been a member " of ſeveral parliaments, and found him of the " ſame opinion with my council in reference to " the obligation to take the teſt and oaths you and " I diſcourſed of; yet not content with this, and " hearing, that an acquaintance of mine was come " to town, whoſe eminent ſkill in the law had " made him a judge, if he himſelf had not de- " clined to be one, I deſired his advice, (which " becauſe he would not ſend me till he had per- " uſed the Society's charter, I received not till " late laſt night,) and by it I found, that he con- " curred in opinion with the two lawyers already " mentioned, and would not have me venture up- " on the ſuppoſition of my being unconcerned in " an act of parliament, to whoſe breach ſuch heavy " penalties are annexed. His reaſons I have not " now time to tell you, but they are of ſuch " weight with me, who have a great (and per- " haps peculiar) tenderneſs in point of oaths, that " I muſt humbly beg the Royal Society to pro- " ceed to a new election, and do ſo eaſy a thing, " as among ſo many worthy perſons, that com- " poſe that illuſtrious company, to chooſe a pre- " ſident, that may be better qualified than I for ſo " weighty an employment. You will oblige me " alſo to aſſure them, that though I cannot now

" receive

" receive the great honour they were pleaſed to " deſign me, yet I have as much ſenſe of it, as " if I actually enjoyed all the advantages belong- " ing to it. And accordingly though I muſt not " ſerve them in the honourable capacity they were " pleaſed to think of for me, yet I hope, that, " God aſſiſting, I ſhall not be an uſeleſs Member " of that learned Body, but ſhall manifeſt in that " capacity both my zeal for their work, and my " ſenſe of their favours. This you will oblige " me to repreſent in ſuch a way, as may perſuade " the Virtuoſi, that you will diſcourſe with, how " concerned I am to retain the favourable opinion " of perſons, that have ſo great a ſhare in his " eſteem, who ſhall reckon your good offices on " ſo important an occaſion among the welcomeſt " favours you can ever do,

" SIR,

" your moſt affectionate friend,

" and humble ſervant,

" Ro. Boyle.

" Superſcribed,

" *Theſe for my much reſpected*
" *friend Mr.* Robert Hooke,
" *profeſſor of mathematics at*
" Greſham College.

About this time Dr. *Burnet* being employed in compiling his admirable *Hiſtory of the Reformation*, Mr. *Boyle* contributed very largely to the expence of publiſhing it; which is acknowledged by the doctor in his *Preface* to the *ſecond volume*, in theſe words: " The noble Mr. *Boyle*, as he employs " both his time and wealth for the good of man- " kind, (for which he conſiders himſelf as chiefly

" born, and which he has promoted not only in " his own excellent writings, that have made him " ſo famous over all the world, but in many other " deſigns, that have been chiefly carried on at his " coſt,) ſo hath he renewed his kindneſs to me in " largeſſes ſuitable to ſo great a mind."

IN 1681 Mr. *Boyle* publiſhed his *Diſcourſe of things above Reaſon; inquiring, whether a Philoſopher ſhould admit there are any ſuch? To which are annexed by the Publiſher, for the Affinity of the Subject, ſome Advices about judging of things ſaid to tranſcend Reaſon:* London, in 8vo. as he did the year following his *New Experiments and Obſervations made upon the icy Noctiluca: to which is added, A chemical Paradox grounded upon new Experiments, making it probable, that chemical Principles are tranſmutable; ſo that out of one of them others may be produced:* London, in 8vo. and *A Continuation of new Experiments phyſico-mechanical touching the Spring and Weight of the Air and their Effects. The ſecond part; wherein are contained divers Experiments made both in compreſſed and alſo in factitious Air, about Fire, Animals,* &c. *Together with a Deſcription of the Engines, wherein they were made:* London, in 8vo.

IT was probably in the beginning of the year 1681, that he wrote a letter to Mr. *John Eliot* of *New England*, who was one of the firſt, who preached the goſpel among the Indians of that part of *America*, having learned their language to great perfection, and tranſlated into it the Bible[r] and ſeveral books of piety. Mr. *Boyle*'s letter ſeems to be in anſwer to one from Mr. *Eliot*, dated November 4, 1680[s]; and as it is a ſtrong evidence

[r] It was firſt printed in *Cambridge* in *New England* in 1663, in 4to.

[s] Inſerted in the *Appendix* to this *Life*.

of

of his zeal againſt perſecution on account of religious opinions, it deſerves a place here.

"SIR,

"I AM very glad to find, by the favour of "your very kind letter, that God is pleaſed "to continue you ſtill an active and an uſeful in-"ſtrument in the propagation of the Goſpel of "his ſon among the poor Indians, whoſe having "been ſo true to Chriſtianity, and ſerviceable to "the Engliſh intereſt, may well prove matter of "rejoicing both to you and us. That little, which "I have contributed to their good, deſerves not ſo "advantageous a mention, as your letter makes "of it; and duties of that kind have ſuch recom-"pences apportioned to them by God, that the "performers need not ſeek them from the acknow-"ledgments of men. I am obliged to you for "what I perceive you have done for Mr. *Daniel*, "whom I look upon both as an ingenious man, "and a friend to *New England*, as well by his "good offices here, as by the moderation, to "which he endeavours to perſuade his friends there, "which laſt clauſe I the rather employ, becauſe of "late I have, to my trouble, heard the govern-"ment of the Maſſachuſets ſharply cenſured for "their great ſeverity to ſome diſſenters, who, "contrary to order, had convened at a meeting-"houſe to worſhip God. This ſevere proceeding "ſeems to be the more ſtrange, and the leſs de-"fenſible, in thoſe, who having left their native "country, and croſſed the vaſt ocean to ſettle in "a wilderneſs, that they may there enjoy the li-"berty of worſhipping God according to their "own conſcience, ſeem to be more engaged than "other men to allow their brethren a ſhare in "what they thought was ſo much all good men's

" due. And, indeed, though perſecution for in-
" nocent, though perhaps erroneous opinions,
" taken up for conſcience ſake, were not unſuita-
" ble to the equity and gentleneſs of the Goſpel;
" yet many of your friends here think it would
" be a very improper courſe to be taken by you
" at this time, and fear, that if your rigorous pro-
" ceedings againſt diſſenters ſhould be talked of
" here (as, if you quickly forbear them not, they
" will be) it would open men's mouths againſt
" your government, and furniſh your enemies with
" objections, that your friends would not be able
" to anſwer; and beſides may be of very bad con-
" ſequence to that ſort of men here, who do moſt
" ſymbolize with you in point of opinion and
" worſhip. You will eaſily believe, that I, who
" am never like to viſit your colony, have no pri-
" vate ends of my own in what I have now writ-
" ten; and therefore I hope you will take it, as
" it is meant, for a friendly (and perhaps not un-
" ſeaſonable) admonition, the deſpiſing of which
" may probably be more prejudicial to your colo-
" ny, than many among you ſeem to be aware of.
" Our worthy friend, alderman *Aſhurſt* (though
" now, thanks be to God, in a more hopeful con-
" dition) was on wedneſday laſt ſo ill, that the
" corporation could not meet at his houſe; and
" the preſence of that good man was much miſſed
" amongſt us, and particularly in reference to your
" deſire of having the old teſtament reprinted in
" the Indian language. In his abſence I read to
" the company that part of your letter to me,
" which concerns that affair, and the buſineſs was
" diſcourſed of among us; but in regard we have
" had no letters from the commiſſioners about it,
" and that the court thought they might hear fur-
" ther before the new teſtament and pſalms would

" be

" be printed off; they did not think fit to deter-
" mine any more about that buſineſs, till they
" ſhould have a particular account of the progreſs
" and expence of the work already begun; by
" which account they expect to be aſſiſted to take
" further meaſures. This I acquaint you with by
" order of the company, divers of whoſe members
" on this occaſion manifeſted the kindneſs and
" eſteem, which they had for Mr. *Eliot*. I briefly
" acquainted them alſo with what you wrote to
" me about the * * * people, whoſe language is
" almoſt the ſame with that of the Maſſachuſets.
" If any further diſcoveries be made of them, you
" will oblige me to impart it to him, that in that
" and all your other endeavours to enlarge the
" kingdom of Chriſt, wiſhes you moſt proſperous
" ſucceſs, and is unfeignedly,

" Sir, your moſt affectionate

" and humble ſervant.

In 1683 he wrote *A Letter to the learned Dr.* John Beale, *F. R. S. concerning freſh Water made out of Sea-Water, printed at the deſire of the Patentees*, in a tract intitled, *Salt-Water ſweetened; or a true account of the great advantages of this new invention both by ſea and land: together with a full and ſatisfactory anſwer to all apparent difficulties. Alſo the approbation of the College of Phyſicians:* London 1683, in 8vo. This piece was written by *R. Fitz-Gerald*, Eſq; who in his dedication to the King obſerves, that " the experiment was in a
" great degree owing to eminent Mr. *Boyle*; and
" indeed well worthy ſo ingenious a promoter,
" being ſo much more the favourite of his happy
" genius, as it is univerſally uſeful to mankind."

The

THE year following produced his *Memoirs for the natural History of human Blood, especially the Spirit of that Liquor; with an Appendix*: printed at *London*, in 8vo, and translated into Latin; and his *Experiments and Considerations about the Porosity of Bodies, in two Essays*: printed likewise at *London*, in 8vo. The first essay treats of the porousness of *anima bodies*, and the second of that of *solid bodies*. A Latin translation of this work was also published there in 8vo, the same year, under the title *Tentamen Porologicum*.

HIS writings grew now so numerous, that Dr. *Ralph Cudworth*, the excellent author of *the true intellectual System of the Universe*, recommended to him in a letter dated October 16, 1684, the procuring all his works to be translated into Latin, and published together. "Then, *adds he*, what "you shall superadd, will be easily collected and "added afterwards. And I pray God continue "your life and health, that you may still inrich "the world with more. The writers of hypotheses "in natural philosophy will be confuting one "another a long time, before the world will ever "agree, if ever it do. But your pieces of na-"tural history are unconfutable, and will afford "the best grounds to build hypotheses upon. You "have much outdone Sir *Francis Bacon* in your "natural experiments; and you have not insinuat-"ed any thing, as he is thought to have done, "tending to irreligion, but the contrary."

IN 1685 he gave the world his *Short Memoirs for the natural experimental History of mineral Waters, addressed by way of Letter to a Friend*: printed at *London*, in 8vo. In this book he gives us heads for the natural history of those waters, with a great many curious experiments. With regard to the methods of trying them, he gives the following

directions: 1. To obſerve the changes of the colours made by tinctures in a good light, in order to diſtinguiſh what mineral tinctures they are impregnated with. 2. To vary the ſhades of colours made by mineral waters, either by dropping ſuch waters upon paper, whoſe pores are ſaturated with powder of vitriol, or tinged with a decoction of logwood. Several variations alſo of colours may alſo be made by dropping either medicinal liquors into mineral waters, or an infuſion of galls either before or after. 3. He recommends for ſuch experiments the aſtringent parts of plants, or animals, or eſpecially mineral ſubſtances.

THE next work, which he publiſhed that year, was, *An Eſſay of the great Effects of even languid and unheeded motion: whereunto is annexed, An experimental Diſcourſe of ſome little obſerved Cauſes of the Inſalubrity and Salubrity of the Air and its Effects: London*, in 8vo, and reprinted there in the ſame form in 1690. In this *Eſſay* he proves, by ſeveral inſtances, 1. The great efficacy of celerity in bodies very ſmall, eſpecially when the ſpace, which they move through, is but very ſmall, as in lightning. 2. That the inſenſible motion of ſo ſoft bodies as fluids may have a ſenſible effect upon ſolid bodies, as in ſounds, when they ſhake the windows in an houſe, *&c.* at a conſiderable diſtance. 3. That the number of the inſenſible parts of matter put into motion enable them to perform ſeveral things. 4. That local motion may be propagated through ſeveral mediums, and even ſolid bodies. 5. That the effects of particular modifications of the inviſible motions of fluids on animal bodies to be diſpoſed to be worked upon by them, are very conſiderable. Thus a particular note of a muſical inſtrument hath a peculiar effect upon particular animals. 6. That the effects of fluids

fluids upon inanimate bodies, by a particular texture and modification of the agent and the patient, are alſo conſiderable. 7. That ſome bodies are thought to have their parts abſolutely at reſt, when they are only in a forced ſtate, as of tenſion, compreſſion, *&c.* 8. That one principal reaſon, why ſuch motions, as we ſpeak of, are overlooked, is, that we ſcarce ever take notice but of thoſe motions of ſolid bodies, wherein one whole body drives away another, or at leaſt viſibly hits againſt it; whilſt many effects proceed from the inteſtine motions produced by the external agent in and among the parts of the ſame body.

HE publiſhed alſo, the ſame year, *An hiſtorical Account of a ſtrangely ſelf-moving Liquor*; printed in the *Philoſophical Tranſactions*, No. CLXXVI. p. 1188; and a diſcourſe, intitled, *Of the Reconcileableneſs of ſpecific Medicines to the corpuſcular Philoſophy: to which is annexed, A Diſcourſe about the Advantages of the Uſe of ſimple Medicines*: printed at *London*, in 8vo, and tranſlated into Latin, in which language it was publiſhed there the year following, in 8vo. In this book he obſerves, that there are three ſorts of qualities mentioned in the writings of phyſicians, under the notion of ſpecific virtues; for by ſome of them a medicine is ſaid to have a ſpecific quality, becauſe it is eminently and peculiarly beneficial to a particular part of the body, as the heart, the brain, the eyes, *&c.* Others ſay, that a ſpecific remedy attracts and evacuates ſome determinate humour, as choler, phlegm, *&c.* But the moſt uſual account, upon which a medicine is ſaid to be ſpecific, is, that by ſome hidden property it cures this or that particular diſeaſe, as a pleuriſy, an aſthma, the colic, a dropſy, *&c.* This being the common ſenſe, in which the word is employed, Mr. *Boyle* makes uſe of it in

that ſenſe. He then urges ſeveral arguments for the exiſtence of ſpecific remedies; and enquires, whether the notion of them may be accommodated to the mechanical philoſophy; and lays down the ſix following propoſitions: 1. A ſpecific medicine may cure by diſcuſſion, or reſolving the morbific matter, and thereby fitting it for expulſion through the greater outlets of the body and cuticular pores. 2. It may ſubdue the too great proportion of acid or other luxuriant particles in the maſs of blood, and prevent their coagulating, or other pernicious effects. 3. It may prove ſerviceable by precipitating the peccant matter out of the blood or other fluid of the body. 4. It may peculiarly ſtrengthen and cheriſh the heart, and by that means, or otherwiſe, relieve the part affected. 5. It may have its effect, by producing in the maſs of blood a diſpoſition to inable nature, by correcting, expelling, *&c.* to ſurmount the cauſe of the diſeaſe. 6. It may unite its particles with thoſe of the peccant matter, and thereby conſtitute ſome different ſubſtance, to be eaſily thrown off, or ſafely continued in the body. He then encourages the uſe of *ſimple medicines*, from the advantage of foreſeeing their effects, and their being more ſafe and commodious for exhibition, eaſily procurable, and likely to improve the knowledge of the *Materia Medica*. He obſerves likewiſe, that chemical remedies ſhould be ſimple; and enquires, whether ſimple remedies may cure complex diſtempers.

Besides theſe philoſophical tracts, he gave the world likewiſe, the ſame year, an excellent theological one, *Of the high Veneration Man's Intellect owes to God, peculiarly for his Wiſdom and Power*: printed at *London*, in 8vo, and tranſlated likewiſe into Latin. In the advertiſement prefixed to this tract, we are informed, that "the abrupt begin-
"ning of it will not be wondered at, when it
"is

" is declared, that the whole excurſion is to be " looked upon as a fragment of a diſcourſe, from " which, for certain reaſons, it has been ſeparat- " ed in its preſent form; in which it ought to " paſs for a rough draught; the nobleneſs, ſub- " limity and ſacredneſs of the ſubject not allowing " the author to preſume, that the firſt thoughts " he committed to paper about it, might be for " good and all parted with by him, till he ſhould " have heedfully reviſed and corrected them, and " left in them as few faults, as the diſproportion " of ſo vaſt and ſublime a ſubject to his ſlender " abilities would permit."

IN 1685-6 he publiſhed his *Free Enquiry into the vulgarly received Notion of Nature; made in an Eſſay addreſſed to a Friend:* printed at *London*, in 8vo, and tranſlated into Latin, and printed there in 1687, in 12mo. In this diſcourſe he obſerves, that this notion is prejudicial to religion and philoſophy; and he advances a new notion of it, diſtinguiſhing between the *univerſal* and the *particular* nature of things. With regard to *univerſal nature*, he tells us, that nature is the aggregate of the bodies, which make up the world in its preſent ſtate, conſidered as a principle, by virtue whereof they act and ſuffer, according to the laws of motion, preſcribed by the author of things. And that this makes way for the other ſubordinate notion, ſince the *particular nature* of an individual conſiſts in the *general nature* applied to a diſtinct portion of the univerſe; or ſuppoſing that placed, as it is, in a world framed by God, like ours, it muſt be a convention of the mechanical properties (ſuch as magnitude, figure, order, ſituation, and local motion) of parts convenient and ſufficient to conſtitute, or intitle to its particular ſpecies or denomination the particular body, which they make up; the con-

courſe of all theſe being conſidered as the principle of motion, reſt, and changes in the body.

In June the ſame year, Dr. *Burnet*, afterwards biſhop of *Saliſbury*, tranſmitted to him from the *Hague* the manuſcript account of his travels[1], which he had drawn up in the form of letters addreſſed to Mr. *Boyle*; who in his anſwer to the doctor, dated the 14th of that month, obſerves, that he was glad to find, that "all men do not "travel, as moſt do, to obſerve buildings, and "gardens, and modes, and other amuſements of a "ſuperficial and almoſt inſignificant curioſity; for "your judicious remarks and reflections, *ſays he*, "may not a little improve both a ſtateſman, a "critic, and a divine, as well as they will make the "writer paſs for all three."

The next work of our great author, which ſaw the light, was, *The martyrdom of Theodora and Didymus*, drawn up in his youth, and printed at *London*, 1687, in 8vo; and the year following he publiſhed *Receipts ſent to a Friend in America*: *London*, in 12mo; which edition contains only the firſt five decads of *choice remedies*, and hath a preface before it, which was omitted in the ſecond edition in 1692, containing the ſecond five decads. He publiſhed likewiſe, in 1688, *A Diſquiſition about the final Cauſes of natural things; wherein it is enquired, whether, and (if at all) with what caution a Naturaliſt ſhould admit them. To which are ſubjoined, by way of Appendix, ſome uncommon Obſervations about vitiated Sight*: *London*, in 8vo. In this *Diſquiſition* he examines, whether theſe final cauſes are knowable by men; and obſerves, that they ſignify, 1. Some grand and general ends of the univerſe, ſuch as exerciſing and diſplaying the Creator's wiſdom, the communica-

[1] See Vol. V. p. 624, 625.

tion

tion of his goodneſs, and the admiration and thanks due to him from his intelligent creatures. 2. In a more reſtrained ſenſe, the ends deſigned in the number, fabric, ſituation, and motion of great maſſes of matter, which make large parts of the world; ſince it is very probable, that theſe bodies, ſuch as the ſun, moon, fixed ſtars, and the terraqueous globe, were ſo framed and placed, as not only to perſevere in their own preſent ſtate, but alſo to conduce to the univerſal ends of the creation, and the good of the whole, whereof they are conſiderable parts. Upon which accounts theſe ends may be called *coſmical* or *ſyſtematical*, as they regard the ſymmetry of the great ſyſtem of the world. 3. Ends, which more peculiarly concern the parts of animals, and perhaps plants too; or thoſe, to which the peculiar parts of animals are deſtined for the welfare of the whole creature, conſidered as an intire and diſtinct ſyſtem of organized parts, deſigned to preſerve himſelf, and propagate his ſpecies, upon that ſtage, on which his ſtructure and circumſtances determine him to act his part; which ends Mr. *Boyle* calls *animal ends*. 4. The ſame expreſſion may ſignify another ſort of ends, which, becauſe they relate particularly to man, may be called *human ends*, and are thoſe aimed at by nature, where ſhe is ſaid to frame animals, vegetables, *&c.* for the uſe of man. And theſe ends may be further diſtinguiſhed into *mental* and *corporeal*, not only as man is an animal, framed, like others, for his own preſervation, and the propagation of his ſpecies; but alſo as he is made to have dominion over other animals and works of nature, and fitted to make them ſubſervient to his purpoſes. This diſtinction being thus ſettled, Mr. *Boyle* declares his diſſent, as well from the vulgar notion of final cauſes, which allows of

none but thoſe, which are above called human ones, as from theirs, who wholly reject them all. He obſerves, that chance is an imaginary being; that revelation allows us to ſpeak more poſitively of final cauſes than natural philoſophy; that it is often allowable, from the manifeſt and appoſite uſes of the parts of animal bodies to collect ſome of the particular ends, for which the Creator deſigned them; and in ſome caſes, from the known nature and ſtructure of the parts, to draw probable conjectures about the particular offices of them; that it is rational from the manifeſt fitneſs of ſome things to *coſmical* or *animal ends* to infer, that they were ordained to them by an intelligent agent; that we ought not to be haſty in concluding upon the particular uſe of a thing, or the motive, which induced the author of nature to frame it in a peculiar manner; and that the naturaliſt ſhould not ſuffer the ſearch or diſcovery of final cauſes to make him undervalue or neglect the enquiry after their efficients. In the *Obſervations concerning vitiated Sight* he obſerves, that white objects are moſt viſible to a dim ſight; that both eyes are concerned in real viſion; that the parts of the eye are capable of great dilatation without prejudice; and that colours appear different to diſordered organs.

He publiſhed likewiſe in May the ſame year 1688, at *London*, in two pages in folio, *An advertiſement about the loſs of many of his writings, addreſſed to* J. W. *to be communicated to thoſe of his friends, that are virtuoſi; which may ſerve as a kind of preface to moſt of his mutilated and unfiniſhed writings.* And to the ſame purpoſe I find the following papers of his, which ſhew in what manner he had been treated by plagiaries.

" In

"IN the month of May 1688 I thought myſelf "obliged to give notice to the public, that I had, "partly by ſome men's fraud, and partly by miſ- "chance, loſt ſo many of my eſſays and other "tracts, and had ſo many of my remaining papers "endamaged by corroſive liquors, that the curi- "ous were not thenceforth to expect from me any "thing but imperfect and mutilated. And yet "ſince that time all my care and circumſpection "has not hindered me from loſing ſix centuries "of matters of fact in one parcel, beſides ſo many "other papers of leſſer bulk, that I am reduced "to remind the curious of my former adverti ſe- "ment; not for any pleaſure I take in complain- "ing, or troubling others with my misfortunes, "but to render a reaſon of the courſe I am by "theſe miſadventures driven to, though other- "wiſe I ſhould not think it eligible. This is to "ſecure the remaining part of my writings, eſpe- "cially thoſe, that contain moſt matters of fact, "by ſending them maimed and unfiniſhed, as they "come to hand, to the preſs."

"BEING wont, when I firſt turned a writer, "to ſet down, as well as others uſe to do, my "thoughts and obſervations on papers bound up "into books, I was quite diſcouraged from that "practice, by the loſſes I made at ſeveral times "of manuſcripts, which I ſtrongly ſuſpected to "have been ſurreptitiouſly conveyed away by ſome, "that though they expected to find valuabler "things, than I ſuppoſed they met with, would "not probably have ſtollen away thoſe papers, if "their bulk had not been a main temptation to "the theft.

"WHEREFORE I afterwards reſolved to write "in ſingle ſheets, and other looſe papers, that the

"ignorance

" ignorance of the coherence might keep men " from thinking them worth ſtealing. And though " I could not, by ſo doing, prevent the loſing " ſometimes a paper or two by chance, or other " men's fraud, yet I thought ſuch inconveniencies " (which I could ſometimes eaſily repair out of " my memory) much inferior to thoſe of loſing " an entire diſcourſe, or a whole diſcourſe at a " time. Now that it may ſeem the leſs ſtrange, " that the particulars in the following manuſcript " appear to be huddled together, without any ei- " ther method or connection, I am to advertiſe, " that when I had ſettled the number and titles " of the ſubjects to be treated of in theſe pa- " pers, I found myſelf both invaded with a ſick- " neſs threatning enough, and likely to be hindred " by other diſtracting avocations, from ſetting " down the particulars belonging to the enſuing " treatiſe, in ſuch an uninterrupted ſeries, as I had " propoſed to myſelf; which made me reſolve, " rather than venture the loſs of my obſervations, " to ſet down under each title or ſection thoſe, " that did more particularly belong unto it, with- " out any other order than that, wherein I lighted " on them, contenting myſelf to leave competent " blanks or intervals between the diſtinct obſer- " vations, notions, *&c.* which courſe I pitch upon, " partly, that, if God ſhould be pleaſed to ſpare " me life and leiſure, I might be able to fill them " up in the requiſite connexions, tranſitions, *&c.* " partly that I might preſerve the materials, ſome " of which do not perhaps deſerve to periſh, but " gave me ſome hopes, that though I myſelf " ſhould not complete with them the fabric I " chiefly deſign them for, yet perhaps a ſkilful " builder may think fit to perform it; and that " however they may at leaſt prove uſeful for other " purpoſes.

" THAT

"THAT the author may not be diſcouraged "from continuing to impart clearly and freely his "experiments and notions to the commonwealth "of letters, I think it neceſſary to advertiſe equi-"table readers, that he has been the worſe dealt "with by ſeveral writers, upon the very account "of that candor and faithfulneſs he has exerciſed "in delivering matters of fact. For whereas "when experiments and obſervations are related "by men, whoſe faithfulneſs is dubious, the more "cautious ſort of plagiaries think themſelves ob-"liged to mention the names of their authors, leſt "an experiment not proving true, its falſity ſhould "be (as it juſtly may be) imputed to them, they "think they may ſo ſafely rely on the truth of "what our author relates, that their reputation "runs no venture in making any experiment, "that he delivers, paſs for their own.

"THIS hath emboldened ſeveral writers, both "formerly and of late, to uſurp from him a great "many things, whereof they were not the au-"thors; ſometimes tranſcribing this or that par-"ticular out of his book into theirs, and ſome-"times transferring whole ſets of experiments, if "not reaſonings too, perhaps ſomewhat abridged "or otherwiſe diſguiſed. And this hath been "done by ſome of them, without ſo much as "naming the true author, and ſometimes naming "him indeed as it were incidentally, and perad-"venture reflectingly, for ſome inconſiderable part "of what they took from him. Of theſe ſeve-"ral ſorts of plagiaries it would not be difficult "to give particular inſtances: it will be done, if "it be thought fit and deſired.

"IT is not unknown to a great part of the cu-"rious, that our author hath given eminent proofs "of his readineſs to acknowledge thoſe, whoſe

"writings

" writings he tranſcribes into his, inſomuch, that " ſome new experiments, that were never in the " preſs, till he ſent them thither, and ſo might " eaſily have been adopted by him, were declared " by him not to be his, though he yet knew not " whoſe they were. It will therefore become in- " genuous readers, who would not diſcourage his " candor and communicativeneſs, to think, when " they meet with the ſame experiment in his " writings and in another's, that a perſon, that " has been ſo converſant with nature, and uſes a " comprehenſive method in examining the ſub- " jects he ſolemnly treats of, may be at leaſt as " likely, as moſt others have been, the author of " what he delivers as upon his own knowledge. " And particularly it is deſired and hoped, that " the equitable reader will ſo far concern himſelf " in the reputation of a perſon, who hazarded it " only to ſerve the public, that he will take no- " tice of the time, when our author's books came " abroad, and that wherein the firſt edition of the " books, containing the ſame or the like things " with his, was publiſhed, it having been the " ſubtile practice of ſeveral plagiaries, as well as " *Claudius Berigardus*, to aſſign to the ſecond or " other ſubſequent editions of their books the " ſame date with the firſt impreſſion, and ſteal- " ing into theſe after-editions many paſſages, both " of other authors and divers other experimental " writers, and particularly divers members of the " Royal Society, as if they were as ancient as " the firſt edition of their books, wherein a due " collation will diſcover them not to be extant.

" THIS will, it is hoped, appear but a reaſo- " nable requeſt, ſince the thing deſired is neceſſary " to keep a man, that has long faithfully ſerved " the commonwealth of learning, from being " thought

" thought to have taken from others ſuch things,
" as others have really taken from him.

" THOUGH many learned and ingenious foreign
" writers, eſpecially in *Germany* and *Italy*, have
" thought fit, when they made uſe of our author's
" experiments and obſervations, to do him juſtice,
" and ſometimes even obligingly; yet divers o-
" thers have been far from imitating their lauda-
" ble example. For they have made uſe, not
" only of an experiment or two of his here and
" there, but ſome of them of whole ſets of ex-
" periments; and others have made bold with the
" hiſtorical part of whole chapters out of his
" writings, without taking notice of them, or
" perhaps ſo much as naming him. This way of
" proceeding offended many, and particularly the
" late learned ſecretary of the Royal Society, Mr.
" *H. O.* who publicly complained of it in general
" terms, and ſhewed the prejudice ſuch plagiaries
" muſt naturally do to the commonwealth of learn-
" ing, eſpecially by diſcouraging the induſtry of
" thoſe many, that do not undervalue fame, and
" by encouraging lazineſs in thoſe numerous pre-
" tenders to the new philoſophy, who will never
" take much pains to promote experimental know-
" ledge, whilſt they find it far eaſier to uſurp
" experiments, than to make them, and think
" they may ſecurely, by turning plagiaries, paſs
" for philoſophers. But though our author's ſtrong
" inclination to ſerve the publick, and gratify the
" curious, has hitherto inabled him to ſurmount
" the abovementioned diſcouragement; yet thoſe
" virtuoſi, that are earneſtly deſirous, that the
" more hiſtorical parts of his remaining writings
" may not be expoſed to the accidents, by which
" ſo many of their companions have been loſt al-
" ready,

" ready, nor the curious kept from things, that " may be of uſe or of delight to them, ſo long " as till they may be publiſhed with leſs danger " of being uſurped by foreigners; they have un- " dertaken, for prevention of this danger, both to " haſten the tranſlation of the writings, that will, " God granting him life and health, from time " to time come abroad; and whether he be alive " or not, to have now and then a liſt drawn up " and printed, wherein the particular experiments, " that may have been taken from Mr. *Boyle*'s writ- " ings without owning him for them, will be " mentioned, though without any ſevere reflecti- " ons upon the writers. This courſe is on this " occaſion the rather thought fit, not only that it " may take off a diſcouragement, which might " have too much influence upon another than Mr. " *B.* but becauſe in a time, where ſo many falſe, " obſcure, or imperfectly delivered experiments, " eſpecially chemical ones, fly abroad, it cannot " be indifferent to a wary reader, from what hand " he receives a matter of fact, which one writer " may deliver, not only much more faithfully and " perſpicuouſly, but (what in ſome ſorts of nice " experiments is very conſiderable) with greater " ſkill than another."

THE decay of Mr. *Boyle*'s health began now to interrupt his communications to the Royal Society, as he obſerves himſelf in a letter to monſieur *Le Clerc*, dated May 30, 1689 [u]; and this, added to the ill ſituation of his affairs in *Ireland* upon the revolution, obliged him to reſign his poſt of governor of the corporation for propagating the Goſpel in *New England*, &c. which he did by the following letter to that corporation.

[u] Vol. V. p. 246.

" Honoured

" Aug. 22, 1689, *Pall-Mall.*

" Honoured Gentlemen,

" AS it hath not been without great ſatisfaction, " that I have for many years ſerved ſuch " worthy perſons, as I now write to, in promot- " ing ſo excellent a work, as the propagation of " the Goſpel among ſavages, that were utter ſtran- " gers to it, and worſhiped the grand enemy of " it; ſo it is not without much trouble, that I am " now obliged to reſign ſo honourable, and to me " grateful an employment. And, indeed, it is " none of the leaſt uneaſy circumſtances of the al- " moſt continual ſicklineſs, that out of his juſtice, " and, I hope his goodneſs too, God has been " pleaſed to exerciſe me with of late years, that " my infirmities have diſabled me to perform the " conditions, that the late laws require of thoſe, " that would continue in that publick ſtation, " wherein I counted it a great honour, and ſuch " as deſerved my moſt humble thanks to God for " it, that I was preferred to aſſiſt you ſo long in " carrying on your pious and charitable work. But " on the other ſide, it may very probably turn " to the advantage of the honourable corpora- " tion, who, inſtead of a perſon, that wants his " health, and is for the preſent deprived of all " his eſtate in *Ireland*, may make choice of a go- " vernor, vigorous, active, verſed in letting, ſet- " ting, and other oeconomical affairs, who, eſpe- " cially if he be a ſingle man, may further your " pious endeavours, and contribute to the welfare " of your ſociety, not only by his counſel and " direction, but with his purſe. I hope the ne- " ceſſity of changing an inſtrument will not diſ- " courage you from chearfully proſecuting a de-

" ſign,

" ſign, which you may juſtly expect, that God,
" whoſe glory it aims at, will bleſs, and graci-
" ouſly both proſper and reward. For my part, I
" have found among you ſo particular a regard,
" and ſo much kindneſs to me, during the long
" continuance of my relation to you, that grati-
" tude obliges me, as well for your own ſake, as
" for that of the work you are engaged in, to
" wiſh and pray, that you may be directed in your
" choice, and your next governor may be as faith-
" ful and affectionate as your laſt, but much more
" capable and proſperous. And though I muſt
" ceaſe to ſerve you in my former ſtation, yet you
" will not find me more backward than formerly
" to ſerve you faithfully in my reduced capacity;
" and I hope you will do me the right to believe,
" that to ſee the great and good work, you
" are purſuing, proſper in your charitable hands,
" though I can have the honour to contribute
" but my good wiſhes to it, will heartily rejoice,

" Honoured Gentlemen,

" your moſt faithful and

" moſt humble ſervant."

It was probably about this time, that he thought proper to publiſh the following advertiſement, in order to decline viſits on certain days, that he might have leiſure to finiſh ſome of his works, then lying by him.

" Mr. *Boyle* finds himſelf obliged to intimate
" to thoſe of his friends and acquaintance, that
" are wont to do him the honour and favour of
" viſiting him, 1. That he has by ſome unlucky
" accidents (whereof he has given notice to the
" public) had many of his writings corroded here

" and

" and there, or otherwiſe ſo maimed, that with-
" out he himſelf fill up the *lacunæ* out of his
" memory or invention, they will not be intel-
" ligible. 2: That his age and ſicklineſs have for
" a good while admoniſhed him to put his ſcat-
" tered, and partly defaced, writings into ſome
" kind of order, that they may not remain quite
" uſeleſs. And, 3: that his ſkilful and friendly
" phyſician [z], ſeconded by Mr. *Boyle*'s beſt friends,
" has preſſingly adviſed him againſt ſpeaking daily
" with ſo many perſons, as are wont to viſit him,
" repreſenting it, as that, which cannot but much
" waſte his ſpirits, and by obliging him to ſit a
" great deal too much for a perſon ſubject to the
" ſtone of the kidneys, and on ſeveral other ac-
" counts, impair his health, and diſable him for
" holding out long. And he is alſo obliged fur-
" ther to intimate, that by theſe and other induce-
" ments he does at length, though unwillingly,
" find himſelf reduced to deny himſelf part of
" the ſatisfaction frequently brought him by the
" converſation of his friends and other ingenious
" perſons, and to deſire to be excuſed from re-
" ceiving viſits (unleſs upon occaſions very extra-
" ordinary) two days in the week, namely on the
" forenoon of tueſdays and fridays (both foreign
" poſt days) and on wedneſdays and ſaturdays in
" the afternoon, that he may have ſome time,
" both to recruit his ſpirits, to range his papers,
" and fill up the *lacunæ* of them, and to take
" ſome care of his affairs in *Ireland*, which are
" very much diſordered, and have their face often
" changed by the public calamities there."

HE ordered likewiſe a board to be placed over his door, with an inſcription ſignifying, when he did and did not receive viſits.

[z] Sir *Edmund King*.

AMONG the works, which he finiſhed during theſe intervals of retirement, was probably a collection of elaborate proceſſes in chemiſtry, which he ſent to a friend, with the following letter.

"SIR,

"I CONFESS you are not the only perſon "among my friends, to whom it hath ſeemed "ſomewhat ſtrange, that I, who have ſpent many "of my thoughts, ſome of my money, and, what "I value far more, of my time too, upon che- "miſtry, as well as divers other parts of learn- "ing, have not been taken notice of to have "found any *particulars*, as chemiſts ſpeak, or o- "ther lucriferous experiments upon metals and "minerals, nor have pretended to be poſſeſſor of "thoſe difficult and compounded experiments, "that are magnified by chemiſts as excellent *Her- "metic Arcana.*

"BUT, Sir, ſince I find you in the liſt of "thoſe, that have made the newly-mentioned re- "flection, I am content to give you ſuch a ſum- "mary account of my comportment, as may at "leaſt leſſen your wonder at it. I muſt inform "you then, that when, among other ſtudies, I "applied myſelf to the cultivating of natural phi- "loſophy, I ſoon perceived, that ſome inſight into "chemical operations was, though not abſolutely "neceſſary, yet highly conducive to the true "knowledge of nature, and eſpecially to the in- "dagation of ſeveral of her moſt abſtruſe myſte- "ries. On this ſcore I was induced to make a "nearer inſpection into chemiſtry than virtuoſi "are wont to think it worth while to do; and "I did not repent me of my labour. But as I "cultivated chemiſtry, not ſo much for itſelf, as "for the ſake of natural philoſophy, and in or-

"der

"der to it, ſo moſt of the experiments I deviſed "and purſued, were generally ſuch, as tended not "to multiply proceſſes, or gain the reputation of "having ſtore of difficult and elaborate ones; but "to ſerve for foundations, and other uſeful ma- "terials for an experimental hiſtory of nature, on "which a ſolid theory may in proceſs of time "be ſuperſtructed. For this purpoſe I judged, "that plain and eaſy experiments, and as ſimple, "or as little compounded as may be, would, *cæ-* "*teris paribus*, be the fitteſt, as being the moſt "eaſy to be tried (and, if need be, repeated) and "to be judged of, both in relation to their cauſes, "and to their effects. And for theſe reaſons, "though I had by me a not inconſiderable num- "ber of more compounded and elaborate pro- "ceſſes, ſome of which I had made, and others I "received as great ſecrets from noted artiſts; I "purpoſely forbore to mention any number of "them in my writings about phyſics, being de- "ſirous rather to increaſe knowledge, than make "any oſtentation of any, that I thought would "puzzle moſt readers more than it would inſtruct "them.

"THIS, Sir, I hope, will appear to you a fair "account of your not finding my phyſical diſ- "courſes larded with long and intricate proceſſes, "ſome of which may, I willingly grant, produce "notable effects, and for that reaſon are valuable, "but are leſs fit than far more ſimple ones to diſ- "cover the cauſes of things, which yet is the "chief ſcope of a naturaliſt, as ſuch. And to "thoſe, that think it ſtrange, that among my "other experiments about metals and minerals, "I have not produced thoſe gainful ones, that "chemiſts call *particulars*, it may, I hope, ſuffice "to repreſent, that being a bachelor, and through

" God's bounty furniſhed with a competent eſtate " for a younger brother, and freed from any am- " bition to leave my heirs rich, I had no need to " purſue lucriferous experiments, to which I ſo " much preferred luciferous ones, that I had a " kind of ambition (which I now perceive to " have been a vanity) of being able to ſay, that I " cultivated chemiſtry with a diſintereſted mind, " neither ſeeking nor ſcarce caring for any other " advantages by it, than thoſe of the improve- " ment of my own knowledge of nature, the gra- " tifying the curious and induſtrious, and the ac- " quiſt of ſome uſeful helps to make good and un- " common medicines.

" If I may be allowed to judge of courſes by " the ſucceſs, the entertainment, that the public " has been pleaſed to give my endeavours to ſerve " it, will not make me repent of the way I have " made choice of to do it in. But, however, ſince " I find myſelf now grown old, I think it time " to comply with my former intentions to leave a " kind of Hermetic legacy to the ſtudious diſci- " ples of that art, and to deliver candidly, in the " annexed paper, ſome proceſſes chemical and me- " dicinal, that are leſs ſimple and plain than thoſe " barely luciferous ones I have been wont to affect, " and of a more difficult and elaborate kind, than " thoſe I have hitherto publiſhed, and more of " kin to the nobleſt Hermetic ſecrets, or, as " *Helmont* ſtiles them, *arcana majora*. Some of " theſe I have made and tried; others I have " (though not without much difficulty) obtained, " by exchange or otherwiſe, from thoſe, that affirm " they knew them to be real, and were themſelves " competent judges, as being ſome of them diſci- " ples of true adepts, or otherwiſe admitted to " their acquaintance and converſation. Moſt of

" theſe

" theſe proceſſes are clearly enough delivered ; " and of the reſt there is plainly ſet down, with- " out deceitful terms, as much, as may ſerve to " make what is literally taught to be of great uti- " lity, though the full and complete uſes are not " mentioned, partly becauſe, in ſpite of my phi- " lanthropy, I was engaged to ſecrecy, as to ſome " of theſe uſes, and partly becauſe I muſt ingenu- " ouſly confeſs it, I am not yet, or perhaps ever " ſhall be acquainted with them myſelf. The " knowledge I have of your great affection for the " public good, and your particular kindneſs for " me, invites me, among the many virtuoſi, in " whoſe friendſhip I am happy, to intruſt the fol- " lowing papers in your hands, earneſtly deſiring " you to impart them to the public faithfully, and " without envy, *verbatim*, in my own expreſſions, " as a monument of my good affections to man- " kind, as well in my chemical capacity, as in the " others, wherein I have been ſollicitous to do it " ſervice. I am, with ſincere reſpect,

" SIR,

" your moſt faithful, and

" moſt humble ſervant,

" ROBERT BOYLE."

THIS collection of chemical proceſſes is not now to be found among his manuſcripts ; though there are ſtill extant among them a great number relating to chemiſtry ; and it appears, that he left orders, that after his death all his papers upon that ſubject ſhould be examined by three phyſi- cians nominated by him for that purpoſe [r], being

[r] Letter of Mr. *John Warr* ſenior to his ſon Mr. *John Warr*, executor to Mr. *Boyle*, dated July 16, 1692.

unwilling, that they ſhould be loſt to the public. And indeed it is highly reaſonable to ſuppoſe, that many important diſcoveries were contained in them, chemiſtry being his favourite ſtudy, and opening to him perpetually ſuch a new ſcene of wonders, as eaſily perſuaded him of the poſſibility of the tranſmutation of metals into gold. This perſuaſion of his is evident from ſeveral parts of his writings, and was avowed by himſelf to the great Dr. *Halley*,* the late royal aſtronomer, who related to me his converſation with him upon that ſubject; and it was probably in conſequence of this opinion, that Mr. *Boyle* procured by his intereſt the following *act* to be paſſed in Auguſt 1689 *for the repeal of a ſtatute made in the fifth year of King* Henry IV. *againſt the multiplying of gold and ſilver*[z].

* Dr. Edmund Halley Died 14: January: 1742. in the LXXXVI: Year of his Age & Buried at Ll near Greenwich in Kent.—

"WHEREAS by a ſtatute made and enacted in "the parliament held in the fifth year of the reign "of King *Henry* the fourth, late King of *England*, "it was, amongſt other things, enacted in theſe "words, or to this effect, namely, *that none from* "*thenceforth ſhould uſe to multiply gold or ſilver, or uſe* "*the craft of multiplication; and if any the ſame* "*do, they ſhould incur the pain of felony:* And "whereas ſince the making of the ſaid ſtatute di-"vers perſons have by their ſtudy, induſtry, and "learning, arrived to great ſkill and perfection in "the art of melting and refining of metals, and "otherwiſe improving them and their ores (which "very much abound within this realm) and ex-"tracting gold and ſilver out of the ſame; but "dare not exerciſe their ſaid ſkill within this "realm, for fear of falling under the penalty of "the ſaid ſtatute, but exerciſe the ſaid art in fo-

[z] Statutes at large, Vol. II. p. 1545. cap. 30. edit. *London*, 1706.

"reign

" reign parts, to the great loſs and detriment of " this realm:

" BE it therefore enacted by the King's and " Queen's moſt excellent Majeſties, by and with " the advice and conſent of the lords ſpiritual and " temporal, and commons in this preſent parlia- " ment aſſembled, that from henceforth the afore- " ſaid branch, article, or ſentence, contained in " the ſaid act, and every word, matter, and thing, " contained in the ſaid branch or ſentence, ſhall " be repealed, annulled, revoked, and for ever " made void; any thing in the ſaid act to the " contrary in any wiſe whatſoever notwithſtand- " ing.

" PROVIDED always, and be it enacted by the " authority aforeſaid, that all the gold and ſilver, " that ſhall be extracted by the aforeſaid art of " melting and refining of metals, and otherwiſe " improving of them and their ores, as before ſet " forth, be from henceforth imployed for no other " uſe or uſes whatſoever, but for the increaſe of " monies; and that the place hereby appointed " for the diſpoſal thereof ſhall be their Majeſties " mint within the Tower of *London*; at which " place they are to receive the full and true value " for their gold and ſilver ſo extracted from time " to time, according to the aſſay and fineneſs " thereof; and ſo for any greater or leſſer weight: " and that none of that metal of gold and ſilver, " ſo refined and extracted, be permitted to be " uſed or diſpoſed in any other place or places " within their Majeſties kingdoms and dominions.

" PROVIDED alſo, and be it further enacted by " the authority aforeſaid, that no mine of copper, " tin, iron, or lead, ſhall hereafter be adjudged, " reputed, or taken to be a royal mine, although " gold or ſilver may be extracted out of the ſame."

In 1690 he gave the world his *Medicina Hydroſtatica: or Hydroſtatics applied to the* Materia Medica; *ſhewing how by the weight, that divers bodies uſed in phyſic have in water, one may diſcover, whether they be genuine or adulterate. To which is ſubjoined, A previous hydroſtatical way of eſtimating Ores*; London, in 8vo. In the *Poſtſcript* he obſerves, that when he firſt ſent to the preſs his *Medicina Hydroſtatica*, he intended "it ſhould, in "the ſame book or volume, be accompanied by "another help or two, to explore and improve "the *Materia Medica*. But when, *ſays he*, the "Eſſay itſelf, and the annexed Epiſtle about a "previous Exploration of Ores had been printed "off, I could not but perceive, that the bulk of "thoſe two tracts ſo far exceed what I expected, "that if I ſubjoined what at firſt I deſigned to "add to it, it would prove a miſ-ſhapen book, "and inconvenient to be opened. Wherefore it "ſeemed expedient to divide the whole intended "work in two volumes or tomes, whereof what "had already paſt the preſs ſhould make the firſt; "which, that it might be the ſooner ſerviceable, "ſhould forthwith come abroad by itſelf; and the "ſecond ſhould conſiſt partly of the other papers "abovementioned, as relating to the *Materia Medica*, and partly of a ſupplement to the firſt "tome, containing divers hiſtorical paralipomena, "that by miſtake were omitted, and are fit to be "there ſupplied out of a fuller copy, than that, "which by an overſight was made uſe of at the "preſs." But this ſecond tome never appeared. In the ſame year he publiſhed likewiſe another excellent work, entitled, *The Chriſtian Virtuoſo; ſhewing, that by being addicted to experimental philoſophy a man is rather aſſiſted than indiſpoſed to be a good Chriſtian. The firſt part. To which are ſubjoined,*

joined, I. *A Diſcourſe about the Diſtinction, that repreſents ſome things as above reaſon, but not contrary to reaſon.* II. *The firſt Chapters of a Diſcourſe, entitled, Greatneſs of Mind promoted by Chriſtianity.* Printed in the *Savoy*, in 8vo. In the *Advertiſement* prefixed to the *Reflections upon a Theological Diſtinction, according to which it is ſaid, that ſome Articles of Faith are above Reaſon, but not againſt Reaſon*, he obſerves, that after he had begun the *ſecond part* of the *Chriſtian Virtuoſo*, and made ſome progreſs in it, which he deſigned to continue till he had completed it, he was obliged to leave the country, where he enjoyed ſome leiſure, and to remove to *London*; where ſickneſs, and buſineſs, and a multitude of viſits he could not avoid receiving, did ſo diſtract him, that theſe remora's, added to the fertility of the ſubjects, that remained to be treated of, which he found much greater than he was at firſt aware of, made him lay aſide the materials he had prepared for the *ſecond part* to a fitter opportunity, and comply with the occaſions he had to publiſh ſome tracts, that required more. He did not live to finiſh this *ſecond part*; but the papers, which he left behind him for that purpoſe, as well as for an *Appendix* to the *firſt part*, are printed in the late edition of his works in folio.

THE year following he communicated to Monſieur *de la Croſe*, author of *the Hiſtory of Learning*, an *Account of ſome Obſervations made in the great Congregation of Waters, by lowering Bottles down into the ſea ſix hundred foot deep from the ſurface, January the* 2*d*, 1677-8, which was printed in that work for the month of July 1691[a], with a ſhort letter from Mr. *Boyle* to the author, in which he obſerves, that this "experiment made a great "noiſe in the court of King *Charles* II. and will,

[a] Pag. 57, 58.

"ſays

" *ſays he*, reſolve all the difficulties in the queſ-
" tions, which you propoſed to me, concerning
" the coldneſs of water. It was made by a cap-
" tain of a ſhip, a man of very good ſenſe, and in
" the preſence of a great many perſons; inſomuch
" that there can be no manner of doubt concern-
" ing it."

THE laſt work, which he publiſhed himſelf, was his *Experimenta & Obſervationes Phyſicæ: wherein are briefly treated of ſeveral Subjects relating to Natural Philoſophy in an experimental Way. To which is added, a ſmall Collection of ſtrange Reports*. Part I. *London* 1691, in 8vo. The *ſecond part* never appeared.

BEING now ſenſible from the decays of his health, that his death could not be very remote, he determined upon drawing up his laſt will, which he ſigned and ſealed upon the 18th of July 1691, and of which I ſhall ſubjoin a copy in the *Appendix* to this *Life*; but before he proceeded to the perfecting of it, he wrote down the following proteſtation.

Number 2: page 335. &c.

" WHEREAS I am this day about to perfect my
" laſt will and teſtament, I do hereby, to prevent
" and ſecure myſelf from all ſcruples, ſolemnly
" proteſt and declare, that I do not intend by
" ſigning and ſealing the ſaid will, or any other
" will or codicil, that I may hereafter ſign, to
" abridge myſelf of any power, that law, or equi-
" ty, or the nature of a will do or can give me,
" to diſpoſe freely of all or any of my temporal
" concerns, even thoſe aſſigned to pious or chari-
" table uſes therein mentioned; and that I reſerve
" to myſelf a full liberty, when this or any other
" teſtament ſhall be perfected, to annul, revoke,
" or alter the whole will, or any part of it, and
" diſpoſe otherwiſe of my concerns, as freely, as

" if

" if the ſaid will, or any part or codicil of it, had " never been ſigned and publiſhed, or ſo much as " intended by me. Witneſs my hand this 18th " day of July 1691.

" RO. BOYLE.

" Witneſs
" JOHN WARR."

IN October following we find by a letter of his, dated the 8th of that month, to Dr. *Turberville* of *Saliſbury*[b], that his ſiſter the lady *Ranelagh* and himſelf were extremely ill; and he particularly complains of a diſtemper in his eyes, which greatly ſurprized and afflicted him, having continued with him for about a month. " The caſe in ſhort, " *ſays he*, is this: in the day time, I ſee, thanks " be to God, as I uſe to do, and ſo till five o'clock " in the afternoon; but then, as ſoon as candles " are brought in, I find a very ſenſible decay in " my ſight; ſo that though I can ſee all the ſame " groſs objects, as I did before, and could, if I " durſt, read printed books, as I have often tried, " yet the reflection from thoſe objects is not vivid, " as it was wont to be; and if I look upon ſome- " what diſtant objects, methinks I ſee them through " a thin miſt, or a little ſmoke; but when the " candles are newly ſnuffed, and ſo the light en- " creaſed, I ſee far better for a little while, till it " begin to have more ſnuff. This diſtemper con- " tinues as long as I make uſe of candle-light; " but the next morning, by God's goodneſs, I " find myſelf as before; only now and then there " ſeems to fall ſlowly down, ſometimes in one " eye, and ſometimes in another, a faintly ſhin- " ing vapour, which immediately diſappears. I " have ſuch apparitions of late, for theſe two or

[b] Vol. V. p. 246, 247.

" three

"three years, without any bad conſequence. What "this diſtemper may proceed from, I know not, "though I remember I have heard you more than "once take notice of the narrowneſs of my pu- "pil. Sight is a thing ſo dear to all men, and "eſpecially to ſtudious perſons, that I earneſtly "beg you would be pleaſed to conſider my caſe "deliberately, and acquaint me with your thoughts "of the cauſe; and more particularly to ſend "preſcriptions of the receipts you would have me "employ, and your directions what elſe you would "have me do towards the cure of it.—I forgot "to tell you, that for ſome months laſt paſt I "have been much troubled with what they call "vapours, or fumes of the ſpleen, and with ſome "ſcorbutic diſaffections."

1691. His ſiſter *Ranelagh*'s indiſpoſition at length terminated in her death, on the 23d of December following; and the loſs of ſuch a perſon was perhaps as fatal to him as it was important to the world. She had lived the longeſt on the moſt public ſcene, and made the greateſt figure in all the revolutions of theſe kingdoms for above fifty years, of any woman of that age. She employed her whole time, intereſt, and eſtate, in doing good to others; and as her great underſtanding, and the vaſt eſteem ſhe was in, made all perſons in their ſeveral turns of greatneſs deſire and value her friendſhip, ſo ſhe gave herſelf a clear title to uſe her intereſt with them for the ſervice of others, by this, that ſhe never made any advantage of it to any end or deſign of her own. She was contented with what ſhe had; and though ſhe was twice ſtript of it, ſhe never moved on her own account, but was the general interceſſor for all perſons of merit or in want. This had in her the better grace,

grace, and was both more Chriſtian and more effectual, becauſe it was not limited within any narrow compaſs of parties or relations. When any party was depreſſed, ſhe had credit and zeal enough to ſerve them; and ſhe employed that ſo effectually that in the next turn ſhe had a new ſtock of credit, which ſhe laid out wholly in that *labour of love*, in which ſhe ſpent her life. And though ſome particular opinions might ſhut her up in a divided communion, yet her ſoul was never of a party. She divided her charities and friendſhips, her eſteem as well as her bounty, with the trueſt regard to merit and her own obligations, without any difference made upon the account of opinion. She had, with a vaſt reach both of knowledge and apprehenſion, an univerſal affability and eaſineſs of acceſs; an humility, that deſcended to the meaneſt perſons and concerns, an obliging kindneſs and readineſs to adviſe thoſe, who had no occaſion for any further aſſiſtance from her. And with all theſe and many other excellent qualities ſhe had the deepeſt ſenſe of religion, and the moſt conſtant turning of her thoughts and diſcourſes that way, that was known perhaps in that age. Such a ſiſter became ſuch a brother; and it was but ſuitable to both their characters, that they ſhould have improved the relation, under which they were born, to the more exalted and endearing one of friend[c]. And as they were *pleaſant in their lives, in their death they were not divided*; for as he had lived with her for the greateſt part of forty ſeven years, ſo he did not ſurvive her above a week, for he died in the ſixty fifth year of his age, on wedneſday, December 30, 1691. at three quarters of an hour after twelve at night[d], and was in-

[c] Biſhop *Burnet*'s Funeral Sermon on Mr. *Boyle*, p. 33, 34.
[d] Mr. *Warr*'s MSS.

terred

terred on the 7th of January following, at the upper end of the ſouth ſide of the chancel of St. *Martin's in the Fields* in *Weſtminſter*, near the body of his ſiſter *Ranelagh*, his funeral ſermon being preached by Dr. *Gilbert Burnet*, biſhop of *Saliſbury*, upon this text, *Eccleſ.* ii. 26. *For God giveth to a man, that is good in his ſight, wiſdom, knowledge, and joy.* His funeral was decent; and though without pomp, yet honoured with a great appearance of perſons of the higheſt diſtinction, beſides his own numerous relations.

BEFORE I proceed to his character, I ſhall inſert an account of his poſthumous works, which were as follows.

I. *The General Hiſtory of the Air deſigned and begun.* Printed at *London*, 1692, in 4to. Mr. *Locke*, in a letter to *William Molyneux*, Eſq; dated December 26, 1692, obſerves, that "though this treatiſe was left imperfect, yet, I think, *ſays he*, the "very deſign of it will pleaſe you; and it is caſt "into a method, that any one, who pleaſes, may "add to it under any of the ſeveral titles, as his "reading or obſervation ſhall furniſh him with "matter of fact. If ſuch men as you are, curious "and knowing, would join to what Mr. *Boyle* had "collected and prepared, what comes in their way, "we might hope in ſome time to have a conſiderable hiſtory of the air, than which I ſcarce "know any part of natural philoſophy would yield "more variety and uſe. But it is a ſubject too "large for the attempts of any one man, and will "require the aſſiſtance of many hands to make "it a hiſtory very ſhort of complete." Mr. *Molyneux*, in his anſwer, dated March 2, 1692-3, writes thus: "I am extremely obliged to you for "Mr. *Boyle's* book of the air, which lately came "to my hands. It is a vaſt deſign, and not to

"be

" be finiſhed but by the united labours of many " heads, and indefatigably proſecuted for many " years; ſo that I deſpair of ſeeing any thing " complete therein. However, if many will lend " the ſame helping hands, that you have done, I " ſhould be in hopes; and certainly there is not " a chapter in all natural philoſophy of greater " uſe to mankind, than what is here propoſed."

II. *Medicinal Experiments: or a Collection of choice remedies, for the moſt part ſimple and eaſily prepared: London* 1692, in 12mo. This is a *ſecond edition* of the *Receipts ſent to a Friend in America:* printed in 1688, with a new preface, and the addition of a *ſecond part*, or the latter five decads. Theſe were again reprinted in 1696, and called the *firſt* and *ſecond* volume; and in 1698 a *third volume* was added to them.

III. *General Heads for the Natural Hiſtory of a country great or ſmall, drawn out for the Uſe of Travellers and Navigators.* To which are added, *Other Directions for Navigators, &c. with particular Obſervations of the moſt noted Countries in the World. By another Hand. London* 1692, in 12mo. Theſe *General Heads* were firſt printed in the *Philoſophical Tranſactions*, No. II. p. 186. No. XVIII. p. 315. No. XIX. p. 330. being drawn up by Mr. *Boyle*, at the requeſt of the Royal Society. The other directions added in this edition were drawn up by various perſons at divers times, by order of the *Royal Society*, and printed in different numbers of the *Philoſophical Tranſactions*; but being in purſuance of the plan ſketched out by Mr. *Boyle*, were very properly annexed to the preceding ones.

IV. *A paper of the honourable* Robert Boyle's, *depoſited with the Secretaries of the Royal Society. Octob.* 14, 1680, *and opened ſince his death; being*

an Account of his making the Phoſphorus, &c. September 30, 1680. Printed in the *Philoſophical Tranſactions*, No. CXCVI. p. 583. anno 1692-3.

V. *An Account of a Way of examining Waters, as to freſhneſs and ſaltneſs. To be ſubjoined as an Appendix to a lately printed Letter about ſweetned Water: October* 30, 1683: publiſhed in the *Philoſ. Tranſact*, No. CXCVII. p. 627.

VI. *A Free Diſcourſe againſt Cuſtomary Swearing, and a Diſſuaſive from Curſing. London* 1695, in 8vo.

VII. *Medicinal Experiments: or a Collection of choice remedies, chiefly ſimple and eaſily prepared; uſeful in Families, and fit for the Service of Country People. The third and laſt Volume, publiſhed from the Author's original MSS. Whereunto is added, ſeveral other uſeful notes, explicatory of the ſame. London* 1698, in 12mo. This and the two preceding volumes have been ſince ſeveral times reprinted all together.

Mr. *Boyle* was tall of ſtature, but ſlender, and his countenance pale and emaciated [d]. His conſtitution was ſo tender and delicate, that he had divers ſorts of cloaks to put on, when he went abroad, according to the temperature of the air; and in this he governed himſelf by his thermometer [e]. He eſcaped indeed the ſmall pox during his life [f]; but for almoſt forty years he laboured under ſuch a feebleneſs of body, and ſuch lowneſs of ſtrength and ſpirits, that it was aſtoniſhing, how he could read, meditate, try experiments, and write as he did. He had likewiſe a weakneſs in his eyes, which made him very tender of them, and ex-

[d] Letter of *John Evelyn*, Eſq; to Dr. *Wotton*, March 29, 1696.

[e] Information of Sir *Hans Sloan*, Bart.

[f] Letter of the Rev. Mr. *Kirkwood* to Mr. *Boyle*, dated July 13, 1689.

tremely

tremely apprehenſive of ſuch diſtempers as might affect them. He imagined alſo, that if ſickneſs ſhould confine him to his bed, it might raiſe the pains of the ſtone to a degree, which might be above his ſtrength to ſupport; ſo that he feared leſt his laſt minutes ſhould prove too hard for him. This was the ground of all the caution and apprehenſion, which he was obſerved to live in. But as to life itſelf, he had that juſt indifference to it, which became ſo true a Chriſtian. However, his ſight began not to grow dim above four hours before he died; and when death came upon him, he had not been above three hours in bed, before it made an end of him with ſo little pain, that it was plain the light went out merely for want of oil to maintain the flame [h]. The ſimplicity of his diet was in all appearance that, which preſerved him ſo long beyond all men's expectation. This he practiſed ſo ſtrictly, that in a courſe of above thirty years he neither eat nor drank to gratify the varieties of appetite, but merely to ſupport nature; and was ſo regular in it, that he never once tranſgreſſed the rule, meaſure, and kind, which were preſcribed him [i].

In his firſt addreſſes, when he was to ſpeak or anſwer, he ſometimes heſitated a little, rather than ſtammered, or repeated the ſame word; and this, as it rendered him ſlow and deliberate, ſo after the firſt effort he proceeded without the leaſt interruption in his diſcourſe [k]. page 220.

He was never married; but Mr. *Evelyn* was aſſured, that he courted the beautiful and ingenious daughter of *Cary*, earl of *Monmouth*; and that to this paſſion was owing his *Seraphic Love* [l].

[h] *Burnet*'s Funeral Sermon, p. 31.
[i] Id. ibid.
[k] Mr. *Evelyn*'s letter of March 29, 1696.
[l] Ibid.

But it does not appear from any of his papers, that he had ever entertained the leaſt thoughts of that kind; and he wrote the following letter, when he was very young, to the lady *Barrimore*, his niece, upon a report of his being actually married, of which that lady had informed him.

" * * * It is high time for me to haſten the " payment of the thanks I owe your ladyſhip for " the joy you are pleaſed to wiſh me, and of " which that wiſh poſſibly gives me more than " the occaſion of it would. You have certainly " reaſon, madam, to ſuſpend your belief of a " marriage celebrated by no prieſt but fame, and " made unknown to the ſuppoſed bridegroom. " I may poſſibly e're long give you a fit of the " ſpleen upon this theme; but at preſent it were " incongruous to blend ſuch pure raillery, as I " ever prate of matrimony and amours with, a- " mong things I am ſo ſerious in as thoſe this " ſcribble preſents you. I ſhall therefore only tell " you, that the little gentleman and I are ſtill at " the old defiance. You have carried away too " many of the perfections of your ſex, to leave " enough in this country for the reducing ſo ſtub- " born a heart as mine, whoſe conqueſt were a " taſk of ſo much difficulty, and is ſo little worth " it, that the latter property is always likely to " deter any, that hath beauty and merit enough " to overcome the former. But though this un- " tamed heart be thus inſenſible to the thing it- " ſelf called love, it is yet very acceſſible to things " very near of kin to that paſſion; and eſteem, " friendſhip, reſpect, and even admiration, are " things, that their proper objects fail not pro- " portionately to exact of me, and conſequently " are qualities, which in their higheſt degrees " are

"are really and conſtantly paid my lady *Barri-*
"*more* by her

"Moſt obliged humble ſervant,

"and affectionate uncle,

"ROBERT BOYLE."

IN the memorandums of Mr. *Boyle*'s life, ſet down by biſhop *Burnet*, it is remarked, that he *obſtained from purpoſes of marriage, at firſt out of policy, afterwards more philoſophically; and upon a general propoſition with many advantages, he would not know the perſon's name.* And we find by a letter of Dr. *John Wallis* to him, dated at *Oxford*, July 17, 1669[m], that he had an overture made to him with reſpect to the lady *Mary Haſtings*, ſiſter to the earl of *Huntingdon*, and eminent for her admirable temper, great piety, and uncommon underſtanding, with every other accompliſhment proper to make him an excellent wife. But he ſtill perſiſted in his firſt reſolution of living ſingle, though few men were more facetious and agreeable in converſation with the ladies, whenever he happened to be engaged among them[n]. And indeed ſometimes, upon other occaſions, he diſtinguiſhed himſelf by ſo copious and lively a flow of wit, that Mr. *Cowley*, and Sir *William Davenant*, both thought him equal in that reſpect to the moſt celebrated genius's of that age[o].

HE had ſo profound a veneration for the Deity, that the very name of God[p] was never mentioned by him without a pauſe and a viſible ſtop in his diſcourſe; in which Sir *Peter Pett*[p], who knew him

[m] Vol. V. p. 514, 515.
[n] Mr. *Evelyn*'s letter of March 29, 1696.
[o] Sir *Peter Pett*'s papers relating to Mr. *Boyle*.
[p] Ibid.

a. Budgell's Memoirs of Boyle. 1737. pa. 132.

for almoſt forty years, affirms, that he was ſo exact, that he did not remember to have obſerved him once to fail in it. He was very conſtant and ſerious in his ſecret addreſſes to God; and it appeared to thoſe, who converſed moſt with him in his enquiries into nature, that his main deſign in that, on which as he had his own eye moſt conſtantly, ſo he took care to put others often in mind of it, was to raiſe in himſelf and others more elevated thoughts of the greatneſs and glory, and of the wiſdom and goodneſs of the Deity [q]. This was ſo deep in his mind, that he concludes the article of his will, which relates to the Royal Society, in theſe words: *Wiſhing them alſo a happy ſucceſs in their laudable attempts to diſcover the true nature of the works of God, and praying, that they and all other ſearchers into phyſical truths, may cordially refer their attainments to the glory of the great Author of Nature, and to the comfort of mankind.* For this purpoſe he founded his lecture in the city of *London*, charging, by a codicil annexed to his will, and dated July 23, 1691, his meſſuage or dwelling-houſe in St. *Michael's Crooked Lane*, in that city, with the payment of the clear yearly rents and profits thereof to ſome learned divine in *London*, or within the bills of mortality, to be elected for a term not exceeding three years by Dr. *Teniſon*, afterwards archbiſhop of *Canterbury*, Sir *Henry Aſhurſt*, Sir *John Rotheram*, and *John Evelyn*, Eſq. The buſineſs, which he appointed thoſe lecturers, was, among others, *to be ready to ſatisfy real ſcruples, and to anſwer ſuch new objections and difficulties, as might be ſtarted, to which good anſwers had not been made*; and alſo *to preach eight ſermons in the year, the firſt monday of January, February, March, April, and May, and of September, October, and November.*

[q] *Burnet's* Funeral Sermon, p. 25.

November. The ſubject of theſe ſermons was to be *the proof of the Chriſtian Religion againſt notorious Infidels, viz. Atheiſts, Theiſts, Pagans, Jews, and Mahometans, not deſcending lower to any controverſies, that are among Chriſtians*. But by reaſon the lectures were ſeldom continued above a year, and that the houſe ſometimes ſtood empty, and tenants broke, or failed in due payment of their rent, therefore the ſalary ſometimes remained long unpaid, or could not be gotten without ſome difficulty. To remedy which inconvenience, archbiſhop *Tenniſon* procured a yearly grant of 50 pounds to be paid quarterly for ever, charged upon a farm in the pariſh of *Brill*, in the county of *Bucks*; which ſtipend is accordingly very duly paid, when demanded, without fee or reward [r].

HE was likewiſe at the charge of the tranſlation and impreſſion of the *Four Goſpels* and *Acts of the Apoſtles* into the Malayan language, as I have remarked above; and this book he ſent over all the *Eaſt-Indies*. He gave a noble reward to Dr. *Edward Pococke*, who tranſlated *Grotius*'s incomparable treatiſe *of the Truth of the Chriſtian Religion* into Arabic, and was at the charge of a whole impreſſion, which was finiſhed at *Oxford* in 1660, in 4to, and which he took care to order to have diſperſed in all the countries, where that language is underſtood. He was reſolved to have carried on the impreſſion of the New Teſtament in the Turkiſh language; but the Company thought, that it became them to perform that work, and ſo ſuffered him only to give a large ſhare towards it [s]. He was at 700 pounds charge in the edition of the Iriſh bible, which he ordered to be diſtributed in

[r] See the note upon Dr. *Will. Derham*'s dedication of his *Phyſico-Theology*, fifth edit. *London* 1720, in 8vo. (†)

[s] *Burnet*'s Funeral Sermon, p. 26.

Ireland[t]; a particular account of which will appear from the *Appendix*, No: III. *Page* 363.

He contributed largely alſo to the impreſſions both of the Welch bible, and of the Iriſh bible, for the uſe of the *High-Lands* in *Scotland*, as may be likewiſe ſeen in the *Appendix*, No: IV. *Page* 396.

He gave, during his life, 300 pounds to advance the deſign of propagating the Chriſtian religion in *America*; and his zeal and generoſity in that reſpect are acknowledged in many letters of Mr. *Eliot*, of *New-England*; which are given in the *Appendix*, No: V. *Page* 430.

He was no leſs a friend to that colony in their civil affairs, as appears by letters of thanks ſigned by the governor, *&c.* ſent to him, and printed in the *Appendix*, No: VI. *Page* 450.

He had the greateſt regard for the clergy, of which he gave many inſtances. When he underſtood, what ſhare he had in impropriations, he ordered very large gifts to be made to the incumbents in thoſe pariſhes, and to the widows of ſuch, as died before he had reſolved upon this charity. A perſon, who was concerned in two diſtributions, which were made, declared, that the ſums upon thoſe two occaſions amounted to near 600 l. *And another very liberal one*, ſays biſhop *Burnet*[u], *is alſo ordered by his will, but in an indefinite ſum; I ſuppoſe, by reaſon of the preſent condition of eſtates in* Ireland; *ſo plentifully did he ſupply thoſe, who ſerved at the altar out of that, which was once devoted to it, though it be now converted to a temporal eſtate.* It appears likewiſe, by a letter of his to one of his ſtewards in *Ireland*, dated January 22, 1684-5, that he had ordered a former ſteward to ſet aſide

[t] Id. ibid. See likewiſe *Burnet*'s Life of Dr. *Will. Bedell*, biſhop of *Kilmore*, p. 136, 137. Edit. *London* 1685, in 8vo.

[u] Funeral Sermon, p. 27.

every

every year about a fifth part (rather more than leſs) of the clear annual income of his tythes and impropriations, to be employed in pious uſes. The orders to the new ſteward run thus: "I muſt deſire "you at every half year's rent day, or when the "rents then due ſhall be paid in to you, to lay "aſide, till you receive contrary orders, the full "fifth part of what you judge you receive for "me *de claro* upon the account of tythes and im-"propriations, to be diſpoſed, *&c.*" And in a letter of Sir *Robert Southwel* to him from *Kingſale*, March 20, 1675 [x], are theſe words: *It has often come into my mind, and indeed I thought, that I had accordingly wrote lately of it, that concern of yours, which long ſince you were pleaſed to honour me with the truſt and care of, I mean, that ſtock of money, which, out of your great bounty and charity, you were pleaſed to diſtribute amongſt thoſe miniſters, that had ſerved the cures upon your impropriate eſtate in this kingdom, and of the diſtribution of which I did long ſince return you an account, and alſo what balance remained unto you, after ſatisfying all the concerned, which was forty five pounds, &c.* I find alſo, by a liſt of names, which he had procured, together with ſeveral letters of thanks ſent him out of *Wales*, that he extended his diffuſive charity to ſuch poor nonconformiſt miniſters there, as were men of piety and good learning.

HE was conſtant to the eſtabliſhed church, and went to no ſeparate aſſemblies, how charitably ſoever he might think of their perſons, and how plentifully ſoever he might have relieved their neceſſities [y]. He had once indeed, before the reſtoration, as he told Sir *Peter Pett* [z], the curioſity, to go to Sir *Henry Vane*'s houſe, and there heard him

[x] Vol. V. p. 406.
[y] *Burnet*'s Funeral Sermon, p. 29.
[z] Sir *Peter Pett*'s papers relating to Mr. *Boyle*.

preach in a large thronged room a long ſermon, on the text of *Dan.* xii. 2. *And many of them that ſleep in the duſt of the earth ſhall awake, ſome to everlaſting life, and ſome to ſhame and everlaſting contempt.* The whole ſcope of Sir *Henry*'s ſermon was to ſhew, that many doctrines of religion, that had long been dead and buried in the world, ſhould, before the end of it be awakened into life; and that many falſe doctrines being then likewiſe revived, ſhould, by the power of truth, be then doomed *to ſhame and everlaſting contempt.* When Sir *Henry* had concluded his diſcourſe, Mr. *Boyle* ſpoke to this effect to him before the people; That being informed, that in ſuch private meetings it was not uncuſtomary for any one of the hearers, who was unſatisfied about any matters there uttered, to give in his objections againſt them, and to prevent any miſtakes in the ſpeakers or hearers; he thought himſelf obliged for the honour of God's truth to ſay, that this place in *Daniel* being the cleareſt one in all the old teſtament for the proof of the reſurrection, we ought not to ſuffer the meaning of it to evaporate into allegory; and the rather, ſince that inference is made by our Saviour in the new teſtament by way of aſſerting the reſurrection from that place of *Daniel* in the old. And that if it ſhould be denied, that the plain and genuine meaning of thoſe words in the Prophet is to aſſert the reſurrection of dead bodies, he was ready to prove it to be ſo, both out of the words of the text and context in the original language, and from the beſt expoſitors both Chriſtian and Jewiſh. But that if this be not denied, and Sir *Henry*'s diſcourſe of the reſurrection of doctrines true and falſe was deſigned by him only in the way of occaſional meditations from thoſe words in *Daniel*, and not to enervate the literal ſenſe as their genuine

genuine one, then he had nothing further to ſay. Mr. *Boyle* then ſitting down, Sir *Henry* roſe up and ſaid, that his diſcourſe was only in the way of ſuch occaſional meditations, which he thought edifying to the people; and declared, that he agreed, that the literal ſenſe of the words was the reſurrection of dead bodies; and ſo that meeting broke up. Mr. *Boyle* afterwards ſpeaking of this conference to Sir *Peter Pett*, obſerved, that Sir *Henry Vane* at that time being in the height of his authority in the ſtate, and his auditors at that meeting conſiſting chiefly of dependents on him and expectants from him, the fear of loſing his favour would probably have reſtrained them from contradicting any of his interpretations of ſcripture, how ridiculous ſoever. "But I (ſaid Mr. *Boyle*) having no little awes of "that kind upon me, thought myſelf bound to "enter the liſts with him, as I did, that the ſenſe "of the ſcriptures might not be depraved."

HE had poſſeſſed himſelf with ſuch an amiable view of Chriſtianity, ſeparated from either ſuperſtitious practices or the ſourneſs of parties, that as he was fully perſuaded of the truth of it, he rejoiced in every diſcovery, which nature furniſhed him with to illuſtrate it, or to take off the objections againſt any part of it. He always conſidered it as a ſyſtem of truths, which ought to purify the hearts, and govern the lives of thoſe, who profeſs it. He loved no practice, which ſeemed to leſſen that; nor any nicety, which occaſioned diviſions amongſt Chriſtians. He thought, that pure and diſintereſted Chriſtianity was ſo bright and glorious a ſyſtem, that he was much troubled at the diſputes and diviſions, which had riſen about ſome leſſer matters, while the great and the moſt important, as well as moſt univerſally acknowledged truths were by all ſides almoſt as generally neg-

neglected, as they were confeſſed [a]. He loved no narrow thoughts, no low or ſuperſtitious opinions in religion; and therefore as he did not ſhut himſelf within a party, ſo neither did he ſhut any party out from him [b]. His zeal was lively and effectual in the greateſt and trueſt concerns of religion; but he avoided to enter far into the unhappy breaches, which had long weakened as well as diſtracted Chriſtianity, any otherwiſe, than to have a great averſion to all thoſe opinions and practices, which ſeemed to him to deſtroy morality and charity. He had a moſt particular zeal againſt all ſeverities and perſecution upon the account of religion; *and I have ſeldom*, ſays biſhop *Burnet* [c], *obſerved him to ſpeak with more heat and indignation, than when that came in his way. He did thoroughly agree with the doctrines of our church, and conform to our worſhip; and he approved of the main of our conſtitution; but he much lamented ſome abuſes, that he thought remained ſtill among us.* And Dr. *Thomas Dent*, prebendary of *Weſtminſter*, who was a particular friend of his, obſerves [d], that "he always "heard him expreſs his judgment and inclination "to the church of *England*; but he was for mo- "deration to thoſe, who diſſented from us, and "not to force tender conſciences, for which he "ſeemed to expreſs great averſeneſs. He had "frequent conferences on this ſubject with the "preſent archbiſhop [*Tenniſon*], biſhop of *Sarum* "[*Burnet*], but particularly the late biſhop of "*Worceſter*, the learned Dr. *Stillingfleet*, for whoſe "depth of learning and ſolid judgment he had "always the greateſt value and eſteem." Sir *Peter Pett* likewiſe affirms, that he was peculiarly warm

[a] *Burnet*'s Funeral Sermon, p. 25, 26. [b] Ibid. p. 29.
[c] Ibid. p. 27. [d] Letter to Dr. *William Wotton*, of May 20, 1699.

in

in his expreſſions againſt perſecution on account of religion; and relates, that ſoon after the reſtoration Mr. *Boyle* and he diſcourſing of the ſeverities practiſed by the biſhops towards the Puritans in the reign of King *Charles* I. and of thoſe, which were returned upon the epiſcopal divines, during the following uſurpations; and being apprehenſive, that the reſtored clergy might be tempted by their late ſufferings to ſuch a vindictive retaliation, as would be contrary to the true meaſures of Chriſtianity and politics, they came at laſt to an agreement, that it would tend to the public good, to have ſomething written and publiſhed in defence of liberty of conſcience. Mr. *Boyle* undertook to engage Dr. *Thomas Barlow*, whoſe judgment in that point he very well knew, to treat of the theological part of the queſtion; and deſired Sir *Peter* to write of the political part; which the latter conſented to, on condition, that Mr. *Boyle* would let him read his manuſcript to him before it was committed to the preſs, and give him his opinion about the whole. Mr. *Boyle* frankly promiſed this, and was willing to ſtate the fact of the allowance of liberty of conſcience in foreign parts. But afterwards conſidering, that Mr. *John Dury*, who had ſpent many years in his travels, eſpecially in the northern parts of *Europe*, when he was engaged in his ſcheme for reconciling the Lutherans and Calviniſts, was capable of writing on that ſubject with more extent and exactneſs, than himſelf, he prevailed upon Mr. *Dury* to write upon it, and rewarded him for it, and delivered the treatiſe drawn by him to Sir *Peter*, who publiſhed it at the end of his own in 1660, (though the booksellers, according to their cuſtom, antedated in the title page 1661,) and inſcribed both thoſe treatiſes with the laſt letters only of the writers names. But he did

not

not print Dr. *Barlow*'s diſcourſe upon the ſame ſubject, becauſe as, on the one hand, it would not, how ſtrong ſoever its reaſonings were, be ſufficient to reſtrain the rigorous meaſures reſolved upon againſt the Nonconformiſts, ſo, on the other, it might expoſe the doctor to the reſentment of his brethren, whom he had offended by writing, juſt before the reſtoration, a letter to Mr. *John Tombes*, the famous Anabaptiſt, in which he had expreſſed ſome prejudice againſt the practice of infant-baptiſm, and by refuſing, even after the reſtoration, to retract that letter, notwithſtanding he was in danger of loſing, by that refuſal, his ſtation in the univerſity of *Oxford*, and all his hopes of future preferment. However his diſcourſe abovementioned was publiſhed after his death under the title of *The Caſe of a Toleration in Matters of Religion*, in a collection, intitled, *Several miſcellaneous and weighty Caſes of Conſcience learnedly and judiciouſly reſolved by the Right Reverend Father in God, Dr.* Thomas Barlow, *late Lord Biſhop of* Lincoln; printed at *London* 1692, in 8vo.

Mr. *Boyle*'s charity to thoſe, who were in want, and his bounty to all learned men, who were put to wreſtle with neceſſities, were very extraordinary. Great ſums went eaſily from him without the partialities of ſect, country, or relations; for he conſidered himſelf as a part of the human nature, and a debtor to the whole race of men. He took care to do this ſo ſecretly, that even thoſe, who knew all his other concerns, could never find out what he did that way. And indeed he was ſo ſtrict to our Saviour's precept, that except the perſons themſelves, or ſome one, whom he truſted to convey it to them, no body ever knew how that great ſhare of his eſtate, which went away inviſibly, was diſtributed; even he himſelf kept no account of it, for

that

that he thought might fall into other hands [e]. "I "ſpeak (ſays biſhop *Burnet* [f]) upon full knowledge "on this article, becauſe I had the honour to be "made uſe of by him in it. If thoſe, that have "fled hither from the perſecutions of *France*, or "from the calamities of *Ireland*, feel a ſenſible "ſinking of their ſecret ſupplies, with which they "were often furniſhed, without knowing from "whence they came, they will conclude, that they "have loſt not only a purſe, but an eſtate, that "went ſo very liberally among them, that I have "reaſon to ſay, that for ſome years his charity "went beyond a thouſand pounds a year."

HE was very plain, unaffected, and temperate in the manner of his life, and had about him all that neglect of pomp in clothes, lodging, furniture, and equipage, which agreed with his grave and ſerious courſe of life [g].

HE was extremely candid and courteous in his converſation. His conſtitution indeed inclined him to be choleric; but he gained ſo perfect an aſcendant over this paſſion, that it never appeared, except ſometimes in his countenance upon a very high provocation [h]. He had brought his mind to ſuch a freedom, that he was not apt to be impoſed upon; and his modeſty was ſuch, that he did not dictate to others, but propoſed his own ſenſe with a due and decent diſtruſt, and was ever ready to hearken to what was ſuggeſted to him by others. When he differed from any, he expreſſed himſelf in ſo humble and ſo obliging a way, that he never treated things or perſons with neglect; and he was never known to have offended any perſon in his whole life by any part of his deportment. For if

[e] *Burnet*'s Funeral Sermon, p. 31. [f] Ibid. p. 32.
[g] *Burnet*'s Funeral Sermon, p. 30.
[h] *Burnet*'s MS. papers.

at any time he ſaw cauſe to ſpeak roundly to any, it was never in paſſion, or with any reproachful or indecent expreſſions. And as he was careful to give thoſe, who converſed with him, no cauſe or colour for diſpleaſure; ſo he was yet more careful of thoſe, who were abſent, never to ſpeak ill of any. If the diſcourſe began to be hard upon any perſon, he was immediately ſilent; and if the ſubject was too long dwelt upon, he would at laſt interpoſe, and between reproof and raillery divert it[i].

WHATEVER he was in the ſight of men, how pure and ſpotleſs ſoever his character appeared to the world, he was in reality the ſame in his moſt ſecret receſſes. He affected nothing, which was ſolemn or ſupercilious, nor uſed any methods to make multitudes run after him, or depend upon him. It was never diſcovered, that there was any thing hid under all this appearance of goodneſs, which was not truly ſo; for he concealed both his piety and charity all he could, and lived in the due methods of civility, and would never aſſume the authority, which all the world was ready to pay him. He allowed himſelf a great deal of decent chearfulneſs, without the leaſt tincture of that moroſeneſs, to which philoſophers think they have ſome right; nor of thoſe affectations, which men of an extraordinary pitch of devotion ſometimes run into, without being well aware of them. He had indeed nothing of frolic and levity in him; he had no reliſh for the idle and extravagant madneſs of the men of pleaſure. He did not waſte his time, nor diſſipate his ſpirits in fooliſh mirth; but he poſſeſſed his own ſoul in patience, full of that ſolid joy, which his goodneſs as well as his knowledge afforded him. He, who had neither deſigns nor paſſions, was capable of little trouble from

[i] *Burnet*'s Funeral Sermon, p. 29, 30.

any

any concerns of his own. He had about him all the tenderneſs of good nature, as well as all the ſoftneſs of friendſhip. Theſe gave him a large ſhare of other men's concerns; for he had a quick ſenſe of the miſeries of mankind. He had alſo a feeble body, which needed to be looked to the more, becauſe his mind went faſter than his body could keep pace with it. Yet his great thoughts of God, and his contemplation of his works, were to him ſources of continual joy, which never could be exhauſted. The ſenſe of his own integrity, and of the good, which he found it did, afforded him the trueſt of all pleaſure, *ſince they gave him*, ſays biſhop *Burnet* [k], *the certain proſpect of that fulneſs of joy, in the ſight of which he lived ſo long.*

He ſpake of the government, even in times, which he diſliked, and upon occaſions, which he ſpared not to condemn, with an exactneſs of reſpect [l]. King *Charles* II. King *James* II. and King *William*, were ſo highly pleaſed with his converſation, that they often uſed to diſcourſe with him with great familiarity. His four elder brothers being all noblemen, he was ſeveral times offered a peerage, which he conſtantly refuſed to accept [m]; but he procured a title, which, without derogating from the dignity of Kings, muſt be acknowledged to be beyond their prerogative [n]. He had too unblemiſhed a candor, to be capable of thoſe arts and practices, which the world generally terms wiſdom. He could neither lie nor equivocate, but could well be ſilent; and by practiſing that much, he covered himſelf upon many uneaſy occaſions. He made true judgments of men and things; and his advices were ſolid and ſound; and if caution

[k] Id. p. 38. [l] Id. p. 35. [m] *Budgell*'s Life of the Earl of *Orrery*, p. 145. [n] *Burnet*'s Funeral Sermon, p. 23.

and

and modeſty gave too ſtrong a bias, his invention was fruitful to ſuggeſt good expedients. He had great notions of what human nature might be brought to; but ſince he ſaw mankind not capable of them, he withdrew himſelf early from courts and affairs, *notwithſtanding the diſtinction*, ſays biſhop *Burnet* [o], *with which he was always uſed by our late Princes*. He had the principles of an Engliſhman, as well as of a proteſtant, too deep in him to be corrupted, or to be cheated out of them; and in theſe he ſtudied to fortify all who converſed much with him. He had a very particular ſagacity in obſerving what men were fit for; and had ſo vaſt a ſcheme of different performances, that he could eaſily furniſh every man with work, who had leiſure and capacity for it; and as ſoon as he ſaw him engaged in it, then an handſom preſent was made, to enable him to go on with it [p].

THE reputation, which he had acquired among foreign nations, was ſo great, that no ſtrangers, who came among us, and had any taſte for learning or philoſophy, left *England* without ſeeing him. He received them with a certain openneſs and humanity, which were peculiar to him; and though theſe viſits made a great waſte of his time, yet as he was ſtrict in not ſuffering himſelf to be denied, when he was at home, ſo he ſaid, that he knew the heart of a ſtranger, and how much eaſed his own had been, while he was travelling, if admitted to the converſation of thoſe, whom he deſired to ſee; and therefore he thought, that his obligation to ſtrangers was more than mere civility, and that it was a point of religious charity in him [q].

HIS knowledge was of prodigious extent. He was a great maſter of the *Greek* language, and read

[o] Ibid. p. 35, 36. [p] Ibid. p. 36.
[q] *Burnet*'s Funeral Sermon, p. 30.

the

the new teſtament in the original with ſuch attention, that he could have quoted it almoſt as readily as the Engliſh verſion [r]. He carried the ſtudy of the Hebrew tongue very far into the Rabbinical writings; and drew up a grammar in it for his own uſe. He learned likewiſe the Chaldee and Syriac, and would have gained a thorough knowledge of the Arabic, if the infirmity of his eyes had not interrupted his progreſs in it [s]. He had read ſo much of the Fathers, that he had formed out of it a clear judgment of all the eminent ones. He had read over a vaſt number of commentators on the ſcriptures, and had gone with great exactneſs through the whole controverſies of religion, and had a juſt idea of the intire body of divinity. He run the whole compaſs of the mathematical ſciences; and though he did not ſet up for an inventor in them, yet he knew even the abſtruſeſt parts of geometry. Geography in the ſeveral branches of it, which related to navigation or travelling, hiſtory, and books of travels, were his diverſions. He went very accurately through all the parts of phyſic; only the tenderneſs of his nature made him leſs able to endure the exactneſs of anatomical diſſections, eſpecially of living animals, though he knew theſe to be moſt inſtructing. But for the hiſtory of nature ancient and modern, of the productions of all countries, of the virtues and improvements of plants, ores, and minerals, and all the varieties, which are in them in different climates, his knowledge was unrivalled in that age [t]. But his peculiar and favourite ſtudy was chemiſtry, "in which, *ſays biſhop* Burnet [u], "he engaged with none of thoſe ravenous and "ambitious deſigns, that drew many into them.

[r] *Burnet*'s MS. papers. [s] Ibid. [t] *Burnet*'s Funeral Sermon, p. 36. [u] Ibid. p. 37.

"His deſign was only to find out nature, to ſee "into what principles things might be reſolved, "and of what they were compounded, and to "prepare good medicaments for the bodies of "men. He ſpent neither his time nor his fortune "upon the vain purſuits of high promiſes and pre-"tenſions. He always kept himſelf within the "compaſs, that his eſtate might well bear. And "as he made chemiſtry much the better for his "dealing in it, ſo he never made himſelf the "worſe or the poorer for it. It was a charity to "others, as well as an entertainment to himſelf; "for the produce of it was diſtributed by his "ſiſter, and others, into whoſe hands he put it." His laboratory was conſtantly open to the curious, whom he permitted to ſee moſt of his proceſſes. It is true, he found out ſome things, in the courſe of his experiments, which he looked upon himſelf as obliged to conceal for the good of mankind. Of this nature were ſeveral ſorts of poiſons, and a certain liquor, with which, he aſſures us, he could diſcharge all the writing of any deed upon paper and parchment, and leave nothing but the parties names, who ſigned it; and that the place, whence the writing had been diſcharged, would bear ink again as well as ever [x].

His merit as a writer in natural philoſophy and chemiſtry is univerſally acknowledged. Dr. *Herman Boerhaave* [y], after having declared lord *Bacon* to be the father of experimental philoſophy, aſſerts, that "Mr. *Boyle*, the ornament of his age "and country, ſucceeded to the genius and inqui-"ries of the great chancellor *Verulam*. Which of "Mr. *Boyle*'s writings ſhall I recommend? All of "them. To him we owe the ſecrets of fire, air,

[x] *Budgell*, p. 144, 145. [y] *Methodus diſcendi medicinam.*

"water,

" water, animals, vegetables, foſſils; ſo that from " his works may be deduced the whole ſyſtem of " natural knowledge." Dr. *Richard Bentley*, in his *fourth ſermon*, preached at the lecture founded by Mr. *Boyle*, thus expreſſes himſelf: *The mechanical or corpuſcular philoſophy, though peradventure the oldeſt as well as beſt in the world, had lain buried for many ages in contempt and oblivion, till it was happily reſtored and cultivated anew by ſome excellent wits of the preſent age. But it principally owes it's re-eſtabliſhment and luſtre to Mr.* Boyle, *that honourable perſon of ever-bleſſed memory, who hath not only ſhewn its uſefulneſs in phyſiology, above the vulgar doctrines of real qualities and ſubſtantial forms, but likewiſe its great ſerviceableneſs to religion itſelf.* Mr. *John Hughes* likewiſe obſerving [z], that Mr. *Boyle* was born the ſame year, in which lord *Bacon* died, tells us, that " he was the perſon, who ſeems to " have been deſigned by nature, to ſucceed to the " labours and inquiries of that extraordinary ge- " nius juſt mentioned. By innumerable experi- " ments, he in a great meaſure filled up thoſe plans " and out-lines of ſcience, which his predeceſſors " had ſketched out. His life was ſpent in the " purſuit of nature, through a great variety of " forms and changes, and in the moſt rational as " well as devout adoration of its divine author." *Franceſco Redi*, in one of his *letters* publiſhed in the *fourth volume* of his works at *Florence* 1724, in 4to, expreſſes the higheſt eſteem and veneration for him, and aſſerts, that *he was the greateſt man, who ever was, and perhaps ever will be, for the diſcovery of natural cauſes.* But the juſteſt and completeſt character of him is given us by the learned and ingenious Dr. *Shaw*, in the *General Preface* to his *Abridgment of Mr.* Boyle's *Philoſophical Works*,

[z] Spectator, No. 554. Vol. VII.

where he tells us [a], that thoſe works *have, from their firſt appearing in public, done an honour to his country, and procured him a general eſteem in the world. The novelty, the variety, the dignity, and the uſefulneſs of the ſeveral ſubjects he treats, with the eaſy and familiar manner, wherein they are handled, recommend his performances to the whole body of mankind. Mr.* Boyle *accommodates himſelf as well to the unlearned and the novice, as to the philoſopher and the ſcholar; his whole ſcope and deſign being, with the utmoſt candor and ſimplicity, to communicate thoſe numerous and important diſcoveries, which coſt him infinite pains and application to make.* He afterwards remarks [b], that Mr. *Boyle* takes up his reader at the elements or fundamental principles of things, and with exquiſite judgment conducts him through all the regions of nature, to furniſh him with objects, whereon to exerciſe his faculties; and being firſt ſolicitous to make him a general philoſopher, leaves him prepared for any further inquiry he ſhall think fit to make into the works of nature or art. That as the beſt and only ſolid foundation for philoſophy is its uſefulneſs to mankind; and the only way to gain it the reputation it deſerves, muſt be to manifeſt the great advantages, that attend the ſtudy thereof; ſo Mr. *Boyle* has been every where careful to ſhew, that nothing can be more ſerviceable and beneficial in life, than experimental philoſophy in general. "The men of wit and learn-
"ing have, *continues Dr.* Shaw, in all ages, buſied
"themſelves in explaining nature by words; but
"it is Mr. *Boyle* alone, who has wholly laid him-
"ſelf out in ſhewing philoſophy in action. The
"ſingle point he perpetually keeps in view, is,
"to render his reader not a talkative, or a ſpecu-
"lative, but an actual and practical philoſopher.

[a] P. 1. 2d edit. *London* 1738, in 4to.

[b] Ibid. p. 4.

"Himſelf

" Himſelf ſets the example; he made all the ex-
" periments he poſſibly could upon natural bodies,
" and communicates them with all deſirable can-
" dour and fidelity." He then obſerves [c], that Mr. *Boyle* reſtrains not the buſineſs of experimenting to any particular branch of ſcience, but applies it, in full latitude, to all the elements, and all the bodies they mix with, or go to compoſe; and that the air, earth, fire, and water, all are ſcrutiniſed and tortured by experiments to confeſs their natures, offices, uſes, and the wiſdom and deſign of their creation. That he greatly opens and dilates the mind; gives us noble and generous thoughts of nature, and of our own abilities; manifeſts, that even deſperate things may be attempted with ſucceſs; and ſhews no quarter to the lazy, indolent temper of thoſe, who, from ſhallow notions, and a want of having ſeen the powers in natural bodies, are for diſcouraging all new and grand undertakings; and uniting the knowledge of the philoſopher with all the freedom and addreſs of the gentleman, he renders the moſt daring projects promiſing and advantageous. That he will never allow us to conſider the world as a rude heap of dull inactive matter, but convinces us, that it is a grand and noble machine, continually actuated, informed, and governed by a moſt wiſe and beneficent being, who keeps all the parts thereof in motion, and makes them act upon one another, according to certain laws. " Then bringing us
" acquainted with theſe laws, he enables us to
" make uſe of the ſame ſtratagems and contri-
" vances, which nature herſelf employs; which
" ſurely are capable of performing the greateſt
" things, when rightly applied; that is, when

[c] Ibid. p. 6.

"applied as Mr. *Boyle*, by his own example and "experience, directs us. But he ſhews alſo, that "in order to make the moſt advantageous uſe of "theſe powers, a general knowledge of nature "is required. Without large and comprehenſive "views, without being well verſed in mechanical "arts, and the ſeveral branches of natural know-"ledge, ſo as to make one aſſiſting to another, "and all in their turn conſpire to the ſame end, "Mr. *Boyle* encourages no man to be a projector[d]." He tells us[e], that Mr. *Boyle* is particularly cautious to guard his reader againſt every operation, that might any ways prove dangerous or hurtful; and to prevent his impoſing upon himſelf by any ſuperficial obſervation, any fallacious or contingent experiment, whether made in his own perſon, or delivered by others. And from an attentive peruſal of his admirable writings, Dr. *Shaw* declares, that in general no author appears to have been more inquiſitive into the foundations and evidence of the narratives he receives from others, or to have ſhewn greater ſagacity and induſtry in diſcovering their weak ſides; always frankly propoſing them, as he received them, to be confirmed or overthrown by farther ſearch and future diligence. For proof of this he appeals to the manner, wherein Mr. *Boyle* delivers himſelf upon what are or were eſteemed the moſt exceptionable things in his writings; the ſpecific virtue of the Peruvian bark, rue-leaved whitlow graſs, *ens veneris*, *oſteocolla*, the *ens primum* of balm, *Butler*'s ſtone, the ſympathetic powder, the weapon ſalve, the alkaheſt of *Paracelſus*, the *virgula divina*, the tranſmutation of metals, projection, or the philoſopher's ſtone, *&c.* and he deſires, that Mr. *Boyle* may be compared herein with the moſt approved and judicious au-

[d] Ibid. p. 8. [e] Ibid. p. 9.

thors,

thors, who have treated of the virtues of remedies, the ſecrets in chemiſtry, and the powers of nature. No doubt (ſays he) Mr. *Boyle* may appear to give more into the belief of ſome extraordinary things, than the vulgar, or perſons unacquainted with experimental philoſophy, and the immenſe powers and ſtrange operations of nature and art; but the queſtion is, whether he has here gone further, than his evidence carried him. He relates alſo upon his own knowledge many things very aſtoniſhing and incredible to minds unprepared by philoſophy to entertain them. But he was ſo happy, as to have ſeen with his own eyes much more of the powers of nature and art, than can eaſily be imagined. And if we conſider the numerous phænomena, which in a very long ſeries of years ſpent upon natural inquiries, moſt of them ſucceſsful, muſt have been preſented him, by the proceſſes of his laboratory, the experiments of the pneumatic engine, his mechanical, optical, hydroſtatical, and other kinds of trials; the correſpondence he happily cultivated with the whole learned world, and particularly with the chemiſts of all nations; the various ſecrets he purpoſely kept to exchange for theirs; we ſhall ſee reaſon enough to perſuade us, that he might well be inabled to deliver things that ſhould ſound odd, ſtrange, and ſhocking to vulgar ears. To render the moſt innocent fluids poiſonous, without altering their colour, taſte, ſmell, or any obvious quality; utterly to eraſe the hand-writing in a ſheet of paper or parchment, without at all unfitting either for ink; to make a baſe metal paſs even upon goldſmiths for gold; not to mention the more ſurpriſing and ſhocking experiments of the like ſtamp; are things, that can hardly be thought poſſible or practicable by the vulgar; yet ſome chemical phi-

loſophers could perform them with eaſe. But there are ſome philoſophers, and even chemiſts, who, if you ſhould tell them, that Mr. *Boyle* had a certain liquor, with which he could convert gold into ſilver; they would beg to be excuſed believing ſo ſtrange a thing. And why? Merely becauſe they never ſaw the like performed, and had tied themſelves down to a narrow ſtrait-laced philoſophy, that would not ſuffer them to look abroad into what nature and art can produce. *But if Mr.* Boyle (ſays Dr. *Shaw*) *has actually done the thing; and others, men of veracity, have aſſured him, they had done it too; is he credulous for believing it? Thoſe rather were ſo, who without ſufficient evidence raſhly concluded the thing impracticable.* The ſame writer then obſerves[f], that ſince Mr. *Boyle* aſſures us, and gives us ſufficient grounds to believe, that he has rendered ſilver, gold, fixed alkalies, *&c.* volatile; converted acids into alkalies; produced light from a deſpicable dark ſubſtance; immediately reſtored fetid and corrupted water, by precipitating from it a ſubſtance not fetid; diſſolved the hardeſt bodies by innocent and potable liquors, without heat; produced cold by a mixture of warm bodies, heat by a mixture of cold ones; warmed cold liquors by ice; inſtantly froze ſpirit of wine; converted that ſpirit into water, water and fixed alkalies into earth; and performed numberleſs other ſurpriſing things, that appear as ſo many contradictions among the unſkilful; may he not, with good reaſon, ſpeak of them as feaſible, and proper to be tried by others? Or may he not, upon the ſtrength of human teſtimony, upon the relation of his friends and acquaintance, believe, that other men have done the ſame, or even greater things than theſe, though himſelf was not an eye-witneſs

[f] Ibid. p. 10.

of

of them? If, after having made his liquid *phoſphorus* in *England*, he ſhould be aſſured, that another chemiſt had made a ſolid one in *Germany*; if, after having invented his air-pump, he ſhould have heard, that many unſuſpected diſcoveries were made by means of it; if having converted gold into ſilver, eye-witneſſes ſhould inform him, that ſilver has been converted into gold; or if having himſelf prepared a menſtruum almoſt as ſtrange as the alkaheſt, could he be reproached with credulity for believing, that *Paracelſus* or *Helmont* might poſſibly poſſeſs it in greater perfection; or that the other things were done by others? "This "ſurely, *ſays Dr.* Shaw[g], is not unphiloſophical, "or irrational. Mr. *Boyle* was too wiſe to ſet any "bounds to nature; he was not forward to ſay, "that every ſtrange thing muſt needs be impoſſi-"ble, becauſe he ſaw ſtrange things every day; "though he always acknowledges, and it was a "common ſaying with him, that *thoſe, who had* "*ſeen them, might better believe them, than thoſe* "*who had not.* He modeſtly thought, that all "we have to do is, to keep our eyes open, and "expect what nature and art will, upon due ap-"plication, perform. He was well aware, that "there are powerful agents in the world, whoſe "laws and manner of acting we want to be ac-"quainted with. A man of a different caſt, or "an ignorant Indian, who had never looked a-"broad, and ſeen the common phænomena, would "ſcarce credit the moſt faithful and exact rela-"tion, that could poſſibly be made him, of the "properties and effects of the loadſtone, or of "gunpowder, by perſons of the greateſt veracity. "But his ignorance alone is the cauſe of this "incredulity. Propoſe the ſame things to a man,

[g] Ibid. p. 11.

"who

" who never heard of gun-powder or the load-
" ſtone, but is otherwiſe a general philoſopher,
" and he will readily and thankfully yield his aſ-
" ſent, and ſollicit you to ſhew him the experi-
" ments." The doctor then remarks [h], that we may certainly depend upon this, that what Mr. *Boyle* delivers as an experiment or obſervation of his own, is related in the preciſe manner, wherein it appeared to him: no one ever yet denied, that he was a man of punctual veracity. And what he delivers as received from other hands, if it be any thing extraordinary, the reader will find, that he does it with a manifeſt diffidence, and in a quite different manner from that, wherein he gives us facts upon his own knowledge; and never entertains it for truth, without producing ſomething analogous or parallel, to countenance it, from his own obſervations or experience, always reſerving to himſelf the full liberty of believing no more than he ſees reaſon for. And what can a man do more than this, to avoid the imputation of credulity? On the contrary, do not thoſe, who, without evidence, and merely from common report, believe Mr. *Boyle* to have been credulous, give us a remarkable inſtance of their own credulity? Wherever he believes more than other men, it is becauſe he had more reaſon for it than they. It is the general way indeed, when a ſtrange thing is related, either poſitively to deny it as impoſſible, or directly to entertain it as a truth. This is making ſhort work of it. But Mr. *Boyle* poſſeſſed in a great degree that noble faculty of ſuſpending his judgment, till by all the enquiries he could any way make, he received fuller information; and then the thing, he found, would determine itſelf.

[h] Ibid. p. 12.

DR.

DR. *Shaw* obſerves next[i], that Mr. *Boyle* is altogether taken up with the objects around us, and of which we are or may be put in poſſeſſion; though we remain ignorant of their properties, virtues, and uſes, till he calls them out, ſets them before us, and ſurprizes us with a ſight of our own ignorance of things ſo near us, ſo momentous in themſelves, and ſo neceſſary to our well-being and the true enjoyment of life. There is no profeſſion or condition of men, but may be benefited by his diſcoveries. As he had a wonderful comprehenſive genius himſelf, he has improved every part of natural knowledge, and the world is more obliged to this ſingle man, than to a thouſand vulgar philoſophers taken together. It is certain, that he laid the foundations of almoſt all the improvements, which have been made ſince his time, in natural philoſophy; and actually himſelf performed abundance of thoſe very things, and perhaps in a much better manner too, whereby ſeveral famous men have gained a reputation in putting them off for their own diſcoveries. A very fine collection of uſeful knowledge, publiſhed as the works of a foreign Society, bears a remarkable teſtimony to this truth. The mechanic, the merchant, the ſcholar, the gentleman, all are benefited by Mr. *Boyle*. He ſhews us trades in a new light, and makes them, what they really are, a part of natural philoſophy; and conſidering them accordingly, reveals ſome of their myſteries; all along advancing proper means to encourage, promote, and multiply the arts themſelves. The goldſmith, the lapidary, the jeweller, the refiner, the ſtone-cutter, the dyer, the glaſs-maker, artizans of all kinds, will from him receive the beſt informations, as to the working, managing, and employing to advantage their various

[i] Ibid. p. 13.

com-

commodities, materials, engines, and inſtruments. The huſbandman and the diver are here inſtructed in their arts; and the mineraliſt, the miner, and aſſayer, to find and ſeparate their ore to the greateſt profit; to encreaſe the quantity; to meliorate, improve, and inrich their metals; to purify and fine them, and accurately to diſtinguiſh the genuine and pure from the adulterate, baſe, and counterfeit. The architect and builder are ſhewn how to chooſe the beſt materials for their ſeveral purpoſes; the painter to make, to mix, and improve his colours; and no part of mankind is neglected by Mr. *Boyle*. But he ſhews a more particular regard to thoſe profeſſions, wherein the health of the ſpecies is nearly concerned. The phyſician, the anatomiſt, the apothecary, and the chemiſt, are moſt highly indebted to him. He has conſidered and improved the art of medicine in all its branches. We owe to him the beſt ways we have of diſtinguiſhing genuine drugs from adulterate; the diſcovery and preparation of ſeveral valuable medicines, with the manner of applying abundance to good advantage. He has ſhewn us the way, wherein ſpecifics may act; how to judge of the wholeſomneſs and unwholeſomneſs of the air, of water, and of places; and how to examine and make choice of mineral ſprings. In a word, there is ſcarce an art, or natural production known, but he makes ſome uſeful diſcovery or improvement in it.

His temper, according to Dr. *Shaw* [k], was moſt open, candid, generous, and communicative. He endeavours to make all the things he treats of plain, eaſy, and familiar. There is no deep knowledge in mathematics or algebra previouſly requiſite to underſtand him fully; no tedious ſyſtems need be read, to prepare us for reaping all the advantages

[k] Ibid. p. 14.

of

of his philoſophy. He brings us at an eaſy rate acquainted with the moſt uſeful things in nature; and this all the world agrees to be the higheſt excellence in a philoſophical writer. His memory will be dear to poſterity, whilſt that of myſtical and enigmatical writers, ſuch as ſtudy to make things difficult, and envy mankind their knowledge, will meet with the diſregard and contempt they deſerve. What principally recommends him, and diſtinguiſhes him from the vulgar herds of chemiſts, naturaliſts, and philoſophers, is this humane temper, this open, candid, generous, and beneficent diſpoſition. He was at immenſe pains and charge in making his enquiries; he ſpared no time, no money, no diligence, in purſuing diſcoveries for the public advantages, without any ſordid view to increaſe his own fortune, which he happily thought ſufficient of itſelf. His beneficent and public ſpirit made the world a generous preſent of all the fruits of his labours, without the leaſt expectation of reward from them. His ſoul was as great and noble as his genius was comprehenſive, or his invention fruitful. And what ſhews him in the moſt amiable point of light, he was far above the ſelfiſh pleaſure of being admired for a genius, or raiſing a reputation by his diſcoveries. Though he wanted no capacity or abilities to have worked up a glorious ſyſtem, and erected a more pompous, oſtentatious, and perhaps a more durable ſtructure of natural and chemical philoſophy, than had ever appeared in the world before; he nobly deſpiſed this poor ſatisfaction and mean gratification, telling us plainly and expreſsly, that, notwithſtanding all he had done, all the labour, pains, and expence beſtowed in a life of natural inquiries, notwithſtanding the vaſtly numerous and important obſervations and diſcoveries he made, he ſaw

nothing

nothing but the firſt dawnings of ſcience; has drawn only the rudiments of natural knowledge, and leaves it in charge to poſterity, for their own ſakes, to conſider him but as a beginner, and to purſue philoſophical enquiries in general, without ſtopping to raiſe petty ſyſtems by the way. "Here, *concludes Dr:* Shaw [1], was a noble ſoul! "This the deſirable character! A true philoſophi- "cal mind, well ſeaſoned with humanity, bene- "ficence, goodneſs! After he had led us through "all the regions of nature; conſidered her various "productions; ſhewed us their uſes, and the man- "ner of converting them to our ſeveral purpoſes; "convinced us, that we live in a world moſt "wiſely contrived, wherein numberleſs grand de- "ſigns are at once carried on with unceaſing va- "riety; and manifeſted, that all the beings, and "all the bodies we know, jointly conſpire, as one "whole, in bringing about the great ends of na- "ture; he bids us not ſtop here, but leaves us "full of aſſurance, that the further we enquire "into the works of the univerſal architect, the "more beauty and harmony, the greater uſe and "ſatisfaction we ſhall find among them; and this "as long as the frame of the world endures. "Theſe noble, manly, and generous notions, are "what the reader will find inculcated through the "philoſophical writings of Mr: *Boyle*; whoſe prin- "cipal aim and great delight it was to benefit "mankind by them."

[1] Ibid: p: 15.

APPENDIX

To the LIFE of the Honourable ROBERT BOYLE.

NUMBER. I.

The Charter of the Corporation for propagating the Gospel in *New England* and the parts adjacent in *America*, of which Mr: *Boyle* was the first Governor. ✠ *Life*, p. 140. ✠

CHARLES the second by the grace of God, King of *England*, *Scotland*, *France*, and *Ireland*, defender of the faith, &c. To all, to whom these presents shall come, greeting. Whereas by the several navigations, discoveries, and successful plantations of divers of our loving subjects of this our realm of *England*, the empire and dominion of us and our royal progenitors and predecessors, hath, by the blessing of Almighty God, been augmented and enlarged, as well upon the main land and continent of *America*, as upon several islands and promontories thereof, and the trade and commerce between *England* and those colonies and plantations hath

hath of late years been very much encreaſed, and by reaſon thereof, and of the pains and induſtry of certain *Engliſh* miniſters of the Goſpel, and others reſiding in or near our colonies and plantations in *New England*, who having attained to ſpeak the language of the heathen natives in thoſe parts, have, by their teaching and inſtructions, brought over many of them from the power of darkneſs, and the kingdom of Satan, to the knowledge of the true and only God, and to an owning and profeſſing of the proteſtant religion (whereof we have of late been more fully informed by the humble petition of divers miniſters and others our loving ſubjects now reſiding in this our kingdom of *England.*) And although a large door of hope be hereby opened to us for the glorifying of the name of Jeſus Chriſt, and the further enlargement of his church, yet unleſs ſome due and competent proviſion be made to lay a foundation for the educating, clothing, civilizing and inſtructing the poor natives; and alſo for the ſupport and maintenance of ſuch miniſters of the Goſpel, ſchoolmaſters, and other inſtruments, as have been, are, or ſhall be ſet apart and employed for the carrying on of ſo pious and Chriſtian a work, the ſame may be much retarded, and a work, ſo happily begun, diſcouraged; thoſe planters, who firſt began, and contributed largely thereunto, being of themſelves unable to bear the whole charge thereof. And whereas we are reſolved, not only to ſeek the outward welfare and proſperity of thoſe colonies by putting an induſtrious people into a way of trade and commerce, that they may be employed and improved, for their own and the common benefit of theſe our kingdoms, but more eſpecially to endeavour the good and ſalvation of their immortal ſouls, and the publiſhing the moſt glorious

Goſpel

Goſpel of Chriſt amongſt them; and to the end that ſuch our loving ſubjects, as either have already been aiding herein, or as ſhall hereafter be willing to contribute hereunto, may not be diſcouraged in their intended charity, for want of ſufficient authority and patronage from us faithfully to order and diſpoſe all and every ſum and ſums of money, goods, chattels, lands, tenements, or hereditaments, that have been, or ſhall, or may be given for the purpoſes aforeſaid; know ye, that we, of our princely piety, and for the further propagation of the Goſpel of Jeſus Chriſt, amongſt the heathen natives in or near *New-England* and the parts adjacent in *America*; and for the better civiliſing, educating and inſtructing of the ſaid heathen natives in learning, and in the knowledge of the true and only God, and in the proteſtant religion, already owned and publicly profeſſed by divers of them; and for the better encouragement of ſuch others of them as ſhall imbrace the ſame, and of them and their poſterity after them, to abide and continue in, and hold faſt the ſaid profeſſion; of our eſpecial grace, certain knowledge, and mere motion, and for divers other good and pious cauſes and conſiderations us thereunto eſpecially moving, do, for us, our heirs and ſucceſſors, will, ordain, conſtitute and declare, by theſe preſents, that there be, and for ever hereafter ſhall be, within this our kingdom of *England*, a ſociety, or company, for propagation of the Goſpel in *New-England*, and the parts adjacent in *America*. And further, we do, for us, our heirs, and ſucceſſors, will, ordain, conſtitute, and appoint, that our right truſty and right well beloved couſin and counſellor, *Edward*, earl of *Clarendon*, lord chancellor of *England*, our right truſty and right well beloved couſin and counſellor, *Thomas*, earl of

Southampton, lord high treaſurer of *England*, our right truſty and well beloved counſellor, *John*, lord *Roberts*, lord privy ſeal, our right truſty and right well beloved couſin and counſellor, *George*, duke of *Albemarle*, our right truſty and right well beloved couſin and counſellor, *James*, duke of *Ormonde*, our right truſty and right well beloved couſin and counſellor, *Edward*, earl of *Mancheſter*, lord chamberlain of our houſhold, our right truſty and right well beloved couſin and counſellor, *Arthur*, earl of *Angleſey*, our right truſty and well beloved counſellor, *William*, viſcount *Say* and *Seale*, our well beloved *Francis Warner*, alderman of *London*, *Eraſmus Smith*, Eſq; *Henry Aſhurſt*, *Richard Hutchinſon*, *Joſhua Woolnough*, *George Clarke*, *Thomas Speed*, *Thomas Bell*, *John Rolfe*, citizens of *London*, our truſty and well beloved *Robert Boyle*, Eſq; Sir *William Thompſon*, Sir *William Bateman*, Sir *Anthony Bateman*, Sir *Theophilus Biddolph*, Sir *Lawrence Bromfield*, knights, *Tempeſt Milner*, *William Love*, *William Peake*, aldermen of *London*, *Thomas Foley*, Eſq; *Thomas Cox*, *John Micklethwait*, *Edmund Trench*, doctors in phyſick, and our well beloved *Charles Doyley*, *Thomas Staynes*, *John Jurian*, *William Antrobus*, *John Bathurſt*, *Harman Sheafe*, *Thomas Gillibrand*, *James Hayes*, *John Benbowe*, *Lawrence Brinſley*, *Barnabas Meares*, *John Acrod*, *John Dockett*, *Edward Boſcowen*, and *Martin Noell*, citizens of *London*, to be the firſt members and perſons, whereof the ſaid company ſhall conſiſt. And that they, the ſaid *Edward*, earl of *Clarendon*, *Thomas*, earl of *Southampton*, *John*, lord *Roberts*, *George*, duke of *Albemarle*, *James*, duke of *Ormonde*, *Edward*, earl of *Mancheſter*, *Arthur*, earl of *Angleſey*, *William*, viſcount *Say* and *Seale*, *Francis Warner*, *Eraſmus Smith*, *Henry Aſhurſt*, *Richard Hutchinſon*, *Joſhua Woolnough*, *George Clarke*, *Thomas Speed*, *Thomas Bell*,

Bell, *John Rolfe*, *Robert Boyle*, Sir *William Thompſon*, Sir *William Bateman*, Sir *Anthony Bateman*, Sir *Theophilus Biddolph*, Sir *Lawrence Bromfield*, *Tempeſt Milner*, *William Love*, *William Peake*, *Thomas Foley*, *Thomas Cox*, *John Micklethwait*, *Edmund Trench*, *Charles Doyley*, *Thomas Staynes*, *John Jurian*, *William Antrobus*, *John Bathurſt*, *Harman Sheafe*, *Thomas Gillibrand*, *James Hayes*, *John Benbowe*, *Lawrence Brinſley*, *Barnabas Meares*, *John Acrod*, *John Dockett*, *Edward Boſcowen*, and *Martin Noell*, and their ſucceſſors, to be hereafter choſen into the ſaid company, and in ſuch manner, as is hereafter in theſe preſents directed, for ever hereafter be, and ſhall be, by virtue of theſe preſents, one body corporate and politic, in deed and in name, and ſhall have continuance for ever, by the name of the company for propagation of the Goſpel in *New-England* and the parts adjacent in *America*. And them the ſaid *Edward*, earl of *Clarendon*, *Thomas*, earl of *Southampton*, *John*, lord *Roberts*, *George*, duke of *Albemarle*, *James*, duke of *Ormonde*, *Edward*, earl of *Mancheſter*, *Arthur*, earl of *Angleſey*, *William*, viſcount *Say* and *Seale*, *Francis Warner*, *Eraſmus Smith*, *Henry Aſhurſt*, *Richard Hutchinſon*, *Joſhua Woolnough*, *George Clarke*, *Thomas Speed*, *Thomas Bell*, *John Rolfe*, *Robert Boyle*, Sir *William Thompſon*, Sir *William Bateman*, Sir *Anthony Bateman*, Sir *Theophilus Biddolph*, Sir *Lawrence Bromfield*, *Tempeſt Milner*, *William Love*, *William Peake*, *Thomas Foley*, *Thomas Cox*, *John Micklethwait*, *Edmund Trench*, *Charles Doyley*, *Thomas Staynes*, *John Jurian*, *William Antrobus*, *John Bathurſt*, *Harman Sheafe*, *Thomas Gillibrand*, *James Hayes*, *John Benbowe*, *Lawrence Brinſley*, *Barnabas Meares*, *John Acrod*, *John Dockett*, *Edward Boſcowen*, and *Martin Noell*, and their ſucceſſors, by the name of the company for propagation of the Goſpel in *New-*

England, and the parts adjacent in *America*, we do, for us, our heirs and ſucceſſors, fully and really create, erect, make, ordain, eſtabliſh, conſtitute, and appoint, to be one body corporate and politic, to have continuance for ever to them and their ſucceſſors. And that by the ſame name they, and their ſucceſſors, ſhall and may have perpetual ſucceſſion, and from time to time (as occaſion ſhall require) aſſemble, and meet together, in ſome convenient place, within the city of *London*, for the ends aforeſaid. And that they and their ſucceſſors, by the name of the company for propagation of the Goſpel in *New-England*, and the parts adjacent in *America*, be forever hereafter perſons able and capable in the law to purchaſe, take, have, hold, receive, and enjoy any manors, lands, tenements, liberties, privileges, juriſdictions and hereditaments whatſoever, of what kind, quality, or nature ſoever they be, ſituate and being either within our kingdom of *England*, or elſewhere, within any other of our dominions and territories, to them, and their ſucceſſors, in fee and perpetuity, or for term of life, or lives, or years, or otherwiſe, in what ſort ſoever; ſo as the ſame exceed not, in lands and hereditaments of inheritance, the clear yearly value of two thouſand pounds; the ſtatute for not putting of lands or tenements in mortmain, or any thing therein contained, or any other act, or ſtatute, to the contrary, notwithſtanding. And alſo all manner of goods and chattels, ſum and ſums of money, and other things whatſoever, of what nature, or quality, ſoever they be. And alſo to give and grant, demiſe, let, aſſign, alien and diſpoſe of all or any of the ſaid manors, lands, tenements, or hereditaments, goods or chattels. And alſo to do, perform, and execute, all and every other lawful act and acts, thing

and

and things, whatſoever, by the name of the company for propagation of the Goſpel in *New-England*, and the parts adjacent in *America*. And further, that the ſaid company, and their ſucceſſors, by the name aforeſaid, ſhall and may be perſons able and capable, in the law, to plead, and to be impleaded, to anſwer, and to be anſwered unto, to defend, and to be defended, in what court, or courts, ſoever, and before any judges, or juſtices, and other perſons and officers of us, our heirs and ſucceſſors whatſoever, in all and ſingular actions, pleas, ſuits, plaints, matters, and demands, of what kind, nature, or quality, ſoever they be, or ſhall be, in the ſame, and in the like, and in as ample manner and form, as any other the people of this our kingdom of *England*, or any other body, corporate or politic, within the ſame our kingdom, may or can have, hold, take, purchaſe, poſſeſs, enjoy, retain, give, grant, demiſe, let, alien, diſpoſe, aſſign, plead, and be impleaded, anſwer, and be anſwered unto, defend, or be defended, do, perform, or execute. And that they the ſaid company for propagating of the Goſpel in *New-England* and the parts adjacent in *America*, and their ſucceſſors, ſhall and may for ever hereafter have a common ſeal, to ſerve and uſe, for all cauſes, matters, things, and affairs, whatſoever, of them and their ſucceſſors. And that it ſhall and may be lawful to and for any thirteen, or more of them, whereof the governor of the ſaid company, for the time being, to be one, to appoint, alter, and make new the ſaid ſeal, from time to time, at their wills and pleaſures, as they ſhall think fit. And further, we will and ordain, and by theſe preſents, for us, our heirs and ſucceſſors, do declare and appoint, that there be, for the better ordering and managing of the affairs and buſineſs of the

ſaid company, and their ſucceſſors, and for ever ſhall be, one of the members of the ſaid company, and their ſucceſſors, who ſhall be, and ſhall be called the governor of the ſaid company; and to hold the ſaid office and place of governor of the ſaid company and their ſucceſſors, ſo long as he the ſaid governor ſhall well demean himſelf in the ſaid office and place, and that the ſaid governor ſhall have hereby power, from time to time, to ſummon, or cauſe to be ſummoned, any courts, or meetings, of the ſaid company, as often as occaſion ſhall require. And we do, for us, our heirs and ſucceſſors, aſſign, name, conſtitute, and appoint the aforeſaid *Robert Boyle*, to be the firſt and preſent governor of the ſaid company and their ſucceſſors, to hold and exerciſe the ſaid office, for ſo long time as he the ſaid *Robert Boyle* ſhall well behave himſelf therein. And therefore we will, and by theſe preſents, for us, our heirs and ſucceſſors, do give and grant unto the ſaid company, for propagation of the Goſpel in *New-England* and the parts adjacent in *America*, and their ſucceſſors, that upon the death or removal of the ſaid governor, for the time being (whom for evil government, frequent neglect of attendance, or any other juſt and reaſonable cauſe, we will, and by theſe preſents do, for us, our heirs and ſucceſſors, declare, ſhall, and may, from time to time, be removed by the ſaid company, or any thirteen of them) it ſhall and may be lawful to and for the ſaid company, or any thirteen of them, as aforeſaid, at their wills and pleaſures, to elect and chuſe any other members of the ſaid company, for the time being, into the place of ſuch governor, as ſhall be dead, or removed, as aforeſaid, to hold and exerciſe the ſaid office, or place, whereunto he ſhall be ſo elected and choſen, as aforeſaid, for ſo long

time

time as he ſhall and do reſpectively well demean himſelf therein. And alſo, in caſe of the abſence of the governor, for the time being, whereby either the meeting of the ſaid company cannot well be ſummoned, or held, or, being ſummoned, cannot proceed, or act, therein; that then the treaſurer of the ſaid company, for the time being, to be choſen, as hereafter is expreſſed, ſhall, and hath hereby power and authority to ſummon ſuch meetings; and then any five or more of the ſaid company, ſo meeting together, ſhall and may have power to appoint one of the ſaid members, ſo meeting, to ſupply the place and office of the governor, for the preſent. And to the end alſo the ſaid company may have a continual ſucceſſion, and may be the better ſupplied, from time to time, hereafter, with fit and able perſons to be members of the ſaid company, in the place and places of ſuch of the preſent members of the ſaid company herein above named, or any others that ſhall hereafter be choſen to be members of the ſaid company, and ſhall hereafter happen to die, or, as ſhall, by reaſon of their own affairs, or otherwiſe, deſire to be diſcharged, or otherwiſe ſhall be removed from being any longer members of the ſaid company, we do likewiſe, for us, our heirs and ſucceſſors, by theſe preſents, give and grant unto the ſaid company for propagation of the Goſpel in *New-England* and the parts adjacent in *America*, and their ſucceſſors, that it ſhall and may be lawful to and for the ſaid governor, for the time being, and company, and their ſucceſſors, or any thirteen, or more of them, whereof the governor, for the time being, to be one, to diſcharge or remove any ſuch perſon, or perſons, from being any longer member, or members, of the ſaid company, as aforeſaid; and by like order, at their wills, and

pleaſures, to admit into the ſaid company, in the place of any of the ſaid member, or members, that ſhall be dead, or removed, as aforeſaid, any other, or ſo many, fit and diſcreet perſon, and perſons, as they ſhall ſee cauſe; ſo as the number of the ſaid perſon, and perſons, to be at any time hereafter newly admitted, and to be members of the ſaid company, together with the then remaining members of the ſaid company, for the time being, do not in the whole exceed the number of five and forty perſons. And further, we will and ordain, and, by theſe preſents, for us, our heirs and ſucceſſors, do give and grant unto the ſaid company for propagating of the Goſpel in *New-England* and the parts adjacent in *America*, and their ſucceſſors, that they, or any thirteen, or more of them (whereof the governor of the ſaid company, for the time being, to be one) ſhall and may elect and chuſe one, or more, fit and able perſon, and perſons, member, or members, of the ſaid company, to be treaſurer, or treaſurers, of the ſaid company, for the time being; and one fit perſon to be clerk of the ſaid company, to write and ſerve for the affairs of the ſaid company and their ſucceſſors; and all and every ſuch other fit perſon, and perſons, and officers, as they ſhall find meet and neceſſary, to be ſerviceable and uſeful to them, in ſuch matters and affairs, touching and concerning the ſaid company and their ſucceſſors, as he, or they, ſhall be employed in, and as they ſhall ſee cauſe, to allow them ſuch ſalaries and allowances, in execution of the ſaid reſpective places, as they ſhall think meet. And the ſaid treaſurer, and treaſurers, clerk, and all other officers, as aforeſaid, to be ſo choſen by them, for reaſonable and juſt cauſe, to diſplace and remove out of their place, or places, and other meet perſons, in their or any of

of their places, at the pleaſure and diſcretion of the ſaid company, and their ſucceſſors, or any nine, or more of them, ſo met and aſſembled, to chuſe and elect. And we do likewiſe, for us, our heirs and ſucceſſors, by theſe preſents, further give and grant unto the ſaid company, and their ſucceſſors, that the ſaid company, and their ſucceſſors, or any nine, or more of them (whereof the governor of the ſaid company, for the time being, to be always one) ſhall and may have full power and authority, by virtue of theſe preſents, to make, ordain, conſtitute, appoint, and ſet down, from time to time, ſuch reaſonable acts, orders, inſtructions, and conſtitutions, in writing, as to them, or any nine, or more of them (whereof the governor of the ſaid company, for the time being, to be always one) ſhall ſeem fit, good, wholeſom, profitable, honeſt, neceſſary and convenient, according to their ſound diſcretions, for the ſupport of the ſaid company and their ſucceſſors; and for directing how and in what manner the ſaid governor, treaſurer, and treaſurers, clerk, and other officers and perſons, for the time being, truſted, and to be truſted and employed by the ſaid company and their ſucceſſors, ſhall and ought to demean, bear, and carry themſelves in their offices, places, and truſts, reſpectively; and for and concerning the managing, ordering, and diſpoſing of all and every the manors, lands, leaſes, tenements, hereditaments, goods, chattels, money, or ſtock of the ſaid company and their ſucceſſors, and for and concerning all and every other matters and things, incident unto, or that ſhall, or may concern the ſame, or any other the matters, or affairs, of the ſaid company and their ſucceſſors; and the ſame acts, orders, inſtructions, and conſtitutions, ſo made, and to be made, to revoke, alter, or change, and

and others, or new ones, to agree, make, ordain, conſtitute, appoint, and ſet down, in writing, as aforeſaid, as they or any nine, or more of them, as aforeſaid, ſhall ſee cauſe; ſo as the ſaid acts, orders, inſtructions, and conſtitutions, or any of them, be not repugnant or contrary to the laws and ſtatutes of *England*, but thereunto conformable and agreeable. Nevertheleſs, our intent and meaning is, that the governor of the ſaid company, for the time being, with any five or more of the other members of the ſame, ſhall have power, from time to time, upon all emergent occaſions, to allow of all incident charges, for and touching the meetings of the ſaid company, and other neceſſary expences, for the better managing of the affairs of the ſaid company. And to the end, that the yearly revenues, iſſues, and profits of all and every the manors, lands, leaſes, tenements, and hereditaments, and alſo the goods, chattels, money, and ſtock, of the ſaid company, and their ſucceſſors, may, from time to time, be faithfully laid out, diſpoſed, employed, and applied, for the promoting and propagating of the Goſpel of Chriſt unto and amongſt the heathen natives, in or near *New-England* and parts adjacent in *America*; and alſo for civiliſing, teaching and inſtructing the ſaid heathen natives, and their children, not only in the principles and knowledge of the true religion, and in morality, and the knowledge of the *Engliſh* tongue, and in other liberal arts and ſciences; but, for the educating and placing of them, or their children, in ſome trade, myſtery, or lawful calling, we do ordain, and for us, our heirs and ſucceſſors, do, by theſe preſents, give and grant full power and authority to the ſaid governor, or any thirteen or more of the ſaid company, for the time being, under the common

ſeal

ſeal of the ſaid company and their ſucceſſors, from time to time, to nominate, conſtitute, and appoint, ſuch and ſo many fit and meet perſon, and perſons, reſiding in or near any of the colonies or plantations in *New-England*, aforeſaid, and parts adjacent in *America*, to be commiſſioners for and on the behalf of the ſaid company and their ſucceſſors, to treat, contract, and agree with ſuch miniſters, ſchoolmaſters, and others, reſiding, and to reſide in any the parts aforeſaid, for ſuch ſalaries, allowances, and recompences, to be from time to time made, given, and paid, to them, and every of them, for their labour, pains, and induſtry, to be taken by them and every of them, in the duties and employments aforeſaid. And alſo to treat, contract, and agree with any other perſon, or perſons, there, for clothes, books, tools, implements, and other neceſſaries, for the civiliſing, employing, educating, or placing out any of the ſaid natives, or their children, that ſhall own and profeſs the proteſtant religion, in Engliſh families, or with and under Engliſh maſters there, or otherwiſe, in ſuch manner, as they, the ſaid commiſſioners, in their good diſcretions, ſhall, from time to time, think fit, and to content, pay, and ſatisfy all ſuch contracts, bargains, and agreements, and all ſalaries, wages, and allowances, to ſuch miniſters, ſchoolmaſters, and officers, as they ſhall ſo contract and agree with, and for the clothing and apparelling of any of the ſaid natives, or their children, and for books, tools, implements, and other neceſſaries, for them, and for educating or placing them, or any of them, with, or under, any Engliſh maſter, or maſters, there, in any trade, myſtery, or lawful calling, out of ſuch monies, goods, and chattels, as ſhall be, from time to time, ſent, or made over, unto the ſaid commiſſioners, ſo to be appointed,

as

as aforeſaid, or any of them, out of *England*, or any other the dominions of us, our heirs and ſucceſſors, by the ſaid company and their ſucceſſors, unto *New-England* aforeſaid, or any the parts adjacent in *America*, as aforeſaid; and alſo to do, perform and execute, all and every other act and acts, matters and things, which ſhall, or may, any way tend or conduce to the ends aforeſaid, in ſuch manner, and according to ſuch orders and inſtructions, as the ſaid commiſſioners, ſo to be employed and intruſted, ſhall, from time to time, receive from the ſaid governor, or any other nine, or more, of the ſaid company, for the time being; which commiſſioners, ſo to be appointed, ſhall, from time to time, give an account, in writing, of their proceedings herein, ſo often as they ſhall be thereunto required, by the ſaid governor, or any other nine of the ſaid company. And that a ſupply of foreign coin, or monies, according to the abilities of the ſaid company and their ſucceſſors, may not be wanting, to be employed for and towards the ends and purpoſes aforeſaid, we do, by theſe preſents, for us, our heirs and ſucceſſors, give and grant free licence, and full power and authority to the ſaid company for propagating of the Goſpel in *New-England* and the parts adjacent in *America*, and their ſucceſſors, by direction, from time to time, of the governor, and any five, or more, of the ſaid company, for the time being, to ſhip and carry, or cauſe to be ſhipped and carried, in any Engliſh ſhip, or veſſel, within any the ports of this our kingdom of *England*, any quantity, or quantities, of Spaniſh, or other foreign ſilver coin, not exceeding in the whole, in any one year, the value of one thouſand pounds, without any charge, or cuſtom, for the ſame, ſo as, before ſuch ſhipping, the ſame, or any part thereof,

thereof, to be ſo carried,, as aforeſaid, the quantity and quantities, and the value and values, of the ſaid foreign coin ſo to be ſhipped and carried, be firſt duly entered in the cuſtom-houſe of us, our heirs and ſucceſſors, of ſuch our port, or ports, of this our kingdom of *England*, where the ſaid foreign coin ſhall be ſo ſhipped, to be carried to *New-England* and parts adjacent in *America*; for any the ends, or purpoſes, abovementioned; any law, ſtatute, act, ordinance, proviſion, proclamation, or reſtraint, to the contrary, in any wiſe, notwithſtanding. And to the end, that what the ſaid company ſhall be ſeized, intereſted, or poſſeſſed of, may, from time to time, be faithfully improved, applied, and diſpoſed, for the ends, intents, and purpoſes herein before declared, and for the neceſſary affairs and buſineſs of the ſaid company and their ſucceſſors only, and no other, we will, and, by theſe preſents, for us, our heirs and ſucceſſors, do require and ordain, that the ſaid company and their ſucceſſors do yearly, and every year (if they ſhall be thereunto required) by and upon the order and warrant of the chancellor, or keeper of the great ſeal of *England* of us, our heirs and ſucceſſors, and of the treaſurer of *England* of us, our heirs and ſucceſſors, and of the chief baron of the court of exchequer of us, our heirs and ſucceſſors, at *Weſtminſter*, for the time being, or any two of them, make, deliver, and declare, a true and perfect account, before the ſaid chancellor or keeper of the great ſeal, treaſurer and chief baron, for the time being, as aforeſaid, or any two of them, of all and every the goods, chattels, and ſtock of the ſaid company and their ſucceſſors, and alſo of the rents, iſſues and profits of all and every the manors, lands, leaſes, tenements and hereditaments, and alſo of all and every ſum and ſums of money,

money, received, iſſued and paid, by or for the uſe of the ſaid company and their ſucceſſors; which ſaid account and accounts, as alſo the account of all and every perſon and perſons heretofore employed for the receiving or diſpoſing any rents, profits, or ſums of money, limited or appointed for propagating the Goſpel in *New-England*; we do, for us, our heirs and ſucceſſors, authoriſe and require the ſaid chancellor, or lord keeper, treaſurer, and chief baron, for the time being, or any two of them, to hear, determine, and declare; and, if they ſhall find juſt cauſe, fully to ratify, confirm, and allow of, all and every the receipts, payments, and diſburſements, in every ſuch account and accounts, to be continued, made, and applied to or for the uſes, intents and purpoſes aforeſaid; and after ſuch declaration and allowance of every ſuch account and accounts, to ſign the ſame, under their or any two of their hands, and to deliver, or cauſe to be delivered, the ſaid account and accounts, ſo to be declared, determined, and allowed of, unto the remembrancer of us, our heirs and ſucceſſors, of the ſaid exchequer, for the time being, to remain on record, in the cuſtody of the ſaid remembrancer, for our uſe and information in the premiſes, without any fee or reward, to be given, or paid, by the ſaid company and their ſucceſſors to the ſaid remembrancer, or any other perſon, or perſons, for the receiving and ſafe keeping of the ſaid account and accounts, or any of them, or otherwiſe than for the entry and writing thereof. And laſtly, we will, and, by theſe preſents, for us, our heirs and ſucceſſors, do grant unto the ſaid company for propagating the Goſpel in *New-England* and the parts adjacent in *America*, and their ſucceſſors, that theſe our letters patents, or the inrollment, or exemplification of the ſame,

and

and all and every the matters, and things, powers, licences, and authorities, in the ſame contained, ſhall be, from time to time, good, valid, ſufficient, and effectual in the law, in and by all things, according to the true intent and meaning thereof; and ſhall be conſtrued, adjudged and taken, as well in all our courts within *England*, or elſewhere, moſt beneficially and largely, and for the benefit and advantage of the ſaid company and their ſucceſſors, any law, ſtatute, act, ordinance, proviſion, proclamation, or reſtraint, to the contrary heretofore had, made, ordained, provided, or publiſhed, or any other matter or thing whatſoever to the contrary in any wiſe notwithſtanding. In witneſs whereof we have cauſed theſe our letters to be made patent; witneſs ourſelf, at *Weſtminſter*, the ſeventh day of February, in the fourteenth year of our reign.

By writ of privy ſeal.

HOWARD.

NUMBER II.

An exact copy of the laſt will and teſtament of the honourable *Robert Boyle*, *Life*, p. 282.

IN the name of God, Amen. I *Robert Boyle*, of *Stalbridge*, in the county of *Dorſet*, Eſq; youngeſt ſon of the late right honourable *Richard*, earl of *Corke*, deceaſed, being, God be praiſed, of good and perfect memory, and taking into due

due and ſerious conſideration the certainty of death, and the uncertainty both of the time and manner of it; being likewiſe deſirous, when I come to die, to have nothing to do but to die Chriſtianly, without being hindred by any avoidable diſtractions from employing the laſt hours of my life in ſending up my deſires and meditations before me to heaven, do, this eighteenth day of July in the third year of the reign of our ſovereign lord and lady *William* and *Mary*, by the grace of God King and Queen of *England*, *Scotland*, *France*, and *Ireland*, defenders of the faith, *&c.* and in the year of our Lord God one thouſand ſix hundred ninety and one, make and ordain this my laſt will and teſtament in writing, in manner and form following.

First and chiefly, I commend my ſoul to Almighty God, my Creator, with full confidence of the pardon of all my ſins in and through the merits and mediation of my alone Saviour Jeſus Chriſt; and my body I commit to the earth, to be decently buried within the cities of *London* or *Weſtminſter*, in caſe I die in *England*, without eſcutcheons, or unneceſſary pomp, and without any ſuperfluous ceremonies, and without the expence of above two hundred and fifty pounds, and alſo without being unneceſſarily diſſected or diſembowelled; and if it ſhall appear neceſſary, that my body be opened, then my will is, that it be performed very privately, and in the preſence of none but the phyſician, or chirurgeon, and his attendants, and of my domeſtics, or very near relations.

And as touching my temporal eſtate, wherewith God of his goodneſs hath been pleaſed to endow me, I diſpoſe thereof in manner and form following; that is to ſay,

I give

I GIVE and bequeath unto my dear ſiſter, the lady *Catharine*, viſcounteſs *Ranelagh*, a ſmall ring, uſually worn by me on my left hand, having in it two ſmall diamonds, with an emerald in the middle; which ring being held by me, ever ſince my youth, in great eſteem, and worn for many years for a particular reaſon, not unknown to my ſaid ſiſter, the lady *Ranelagh*, I do earneſtly beſeech her, my ſaid ſiſter, to wear it in remembrance of a brother, that truly honoured, and moſt dearly loved her.

ITEM, I give to the ſaid lady *Ranelagh* all my manuſcripts and collections of receipts, whether of my own hand-writing, or others, unleſs I do otherwiſe diſpoſe of all or any of them before my deceaſe; beſeeching her to have a care, that they or any of them come not to the hands or peruſal of any, to whom ſhe thinks, that if I were alive, I ſhould be unwilling to have them communicated. And I do likewiſe deviſe unto her the ſum of 300 *l.* (and all intereſt,) which I formerly lent her upon enlarging the dwelling-houſe in the *Pall-Mall*, which ſhe now lives in.

ITEM, whereas by my deceaſe the greateſt part of my intailed lands in *Ireland* will come to my dear and eldeſt brother, *Richard*, now earl of *Burlington* and *Corke*, I do hereby give and bequeath unto him a ſardonyx ſeal ring, which I uſually wear on my little finger, beſeeching him to accept of it, and wear it for my ſake, as a teſtimony of my unfeigned affection, and of my ſenſe of his great kindneſs and many favours towards me; and beg of him to believe, that it doth not afflict me, that I have not children of my own to inherit my intailed lands, ſince they are, by that defect, to return to him, the truly honourable head of our houſe and family.

ITEM, I give and bequeath unto my dear brother, the lord viſcount *Shannon*, the beſt watch I ſhall die poſſeſſed of, to put him in mind of my conſtant kindneſs and affection, which I endeavoured to expreſs by my voluntary yearly expence in keeping up the manor houſe of *Stalbridge*, without intending to live in it, for his ſake.

ITEM, I give and deviſe unto my worthy friend *Richard Newman* of *Weſtminſter* in the county of *Middleſex*, Eſq; a piece of plate of the value of 10*l.* ſterling, as a teſtimony of my remembrance of his kindneſs, which I deſire him to continue by affording his aſſiſtance, if there be occaſion, to my executors hereafter named.

ITEM, I give and bequeath unto my faithful friend *John Nicholls*, Gent. ſteward of the courts of my manor of *Stalbridge*, a piece of plate of the value of 10*l.* ſterling, to be within the ſpace of one year next after my deceaſe delivered unto him by my executors, as a teſtimony of my remembrance and affection; hereby making him the ſame earneſt requeſt, that I have hereby made to Mr. *Richard Newman*.

ITEM, I give and deviſe unto the right reverend father in God *Gilbert*, lord biſhop of *Saliſbury*, my great Hebrew bible with ſilver claſps, as a ſmall token of my great reſpect for him, and ſenſe of his favours to me.

ITEM, I give and deviſe unto *Thomas Smith*, now my ſervant, thirty pounds, in caſe he be with me, or in my ſervice, at the time of my death; but in caſe of his departure, or removal from me, before that time, then my will is, that he ſhall have twenty pounds, and no more.

ITEM, whereas my ſervant *John Warr* the younger is indebted unto me in the ſum of 50*l.* by bond or bill obligatory, my will is, that his ſaid debt be remitted and diſcharged.

ITEM,

ITEM, whereas I had ſet apart, among other things, the ſum of 400 *l.* for certain pious uſes; and whereas his late Majeſty King *Charles* the ſecond having, by his ſpecial grace and favour, without my ſeeking, or knowledge, been pleaſed to conſtitute me governor of the corporation for propagating of the Goſpel amongſt the heathen natives of *New-England* and other parts of *America*, hath thereby given me opportunity to diſcern that work to be unqueſtionably pious and charitable; and whereas I have given and paid the ſum of three hundred pounds towards that piety; I do hereby give and deviſe the ſum of one hundred pounds more to the ſaid corporation (though by reaſon of ſickneſs and infirmity I have reſigned the office of governor) to be ſet aſide and employed as a ſtock for the relief of poor Indian converts, which I hope will prove of good effect for the advancement of the pious work, for which they are conſtituted, and in which I heartily pray him, whoſe glory the work itſelf tends unto (and I hope the perſons intruſted with it aim at) to give them a proſperous ſucceſs.

ITEM, to the Royal and learned Society for the advancement of experimental knowledge, wont to meet at *Greſham* college, I give and bequeath all my raw and unprepared minerals, as ores, marchaſites, earths, ſtones (excepting jewels) *&c.* to be kept amongſt their collections of the like kind, as a teſtimony of my great reſpect for the illuſtrious Society and deſign, wiſhing them alſo a moſt happy ſucceſs in their laudable attempts to diſcover the true nature of the works of God, and praying, that they and all other ſearchers into phyſical truths may cordially refer their attainments to the glory of the Author of nature, and the benefit of mankind.

ITEM, to my worthy friend and phyſician, Sir *Edmund King*, Knt. I give and bequeath a ſilver ſtandiſh of the value of 30 *l.* ſterl. as an unfeigned, though ſlight teſtimony of the juſt eſteem I have of his worth and ſkill, and the ſenſe I have of his particular care of me and kindneſs for me.

ITEM, I give to Mr. *Robert Hooke*, now profeſſor of mathematics in *Greſham* college, my beſt microſcope and my beſt loadſtone, which I ſhall have at the time of my death.

ITEM, I give and bequeath unto Mr. *John Dwight* and Mr. *John Whittane*, once my ſervants, each of them a ring of 5 *l.* price.

ITEM, I give and bequeath unto Mr. *Chriſtopher White*, once my ſervant, 5 *l.* ſterl.

ITEM, I give and bequeath unto Mr. *John Milne* and Mr. *Hugh Gregg*, once my ſervants, each of them a ring of 6 *l.* price.

ITEM, I give unto *Nicholas Watts*, my bailiff of the manor of *Stalbridge*, a piece of plate of the value of 10 *l.* or 10 *l.* ſterl. in money, in lieu thereof, to be at his own choice.

ITEM, I give unto my aforeſaid ſervant *John Warr*, 40 *l.* and the one half of my wearing apparel and linen, in caſe he be with me at the time of my death; but otherwiſe to have no ſhare of my apparel or linen.

AND I give to *Robert St: Claire*, my ſervant, the ſum of 15 *l.* and the other half of my apparel and linen, in caſe he continues to be my ſervant, at the time of my death: if he doth not, then I give to him a ring of 6 *l.* price only. And to Dr: *Frederick Slare*, late my ſervant, a ring of 8 *l.*

AND I make and ordain my ſaid dear brother, *Richard* earl of *Burlington* and *Corke*, and my ſaid dear ſiſter, the lady *Ranelagh*, and *John Warr* the younger, gent. my preſent ſervant, ſole executors of this my laſt will and teſtament.

ITEM,

ITEM, I give and deviſe to my ſaid executors all my eſtate, right, title and intereſt of, in, and to a certain leaſe, bearing date in or about the month of made by the corporation of mines royal, or their authority, unto *William*, lord viſcount *Brounker*, Sir *Robert Moray*, Knt. late lord *Brereton*, and myſelf, of a mine, or mines, in or near the pariſh of *Aſhbury* in *Cheſhire*, for 41 years, or thereabouts.

ITEM, whereas the executors of *James Watſon*, late alderman of the city of *Dublin*, and *Abraham Richens*, late of the ſame city, merchant, or ſome one of them ſtand indebted to me in nine hundred and ſixty pounds, or thereabouts, towards ſatisfaction whereof I have received the ſum of fourſcore pounds, or ſomewhat more, for a houſe in *Dames-ſtreet*, *Dublin*, ſold by me to my once worthy friend, Sir *John Temple*, Knt. deceaſed, formerly maſter of the rolls; which houſe was made over unto me, amongſt other things, towards ſatisfaction of the ſaid debt, upon a decree, which I obtained in the then called the court for the adminiſtration of juſtice ſitting at *Dublin* aforeſaid. And whereas the ſaid debt of 960 *l.* or thereabouts, ſaving and except the 80 *l.* or ſomewhat more, ſo as aforeſaid beforementioned to be received, is ſtill due and owing; I give and deviſe the ſame, with all writings of what kind ſoever thereunto belonging, and the proceed of compoſition for the ſaid debt, whenſoever it ſhall happen, to be made unto my executors; and I do hereby will and declare, that all and every of my bequeſts aforeſaid unto the ſaid *Richard* earl of *Burlington*, the lady *Ranelagh*, and *John Warr*, my ſervant, jointly, as executors, and in that capacity, ſhall not be for their own private uſe, but only in truſt for and towards the payment of my debts and legacies hereby deviſed,

viſed, and towards and for performance of this my laſt will and teſtament, and to and for no other uſe or uſes whatſoever.

And as touching the diſpoſition of all and ſingular my caſtles, manors, lordſhips, meſſuages, lands, tenements, and hereditaments in the kingdom of *Ireland*, which I have power to diſpoſe of, this is the laſt will and teſtament of me the ſaid *Robert Royle* made and declared the day and year firſt above written, *viz.*

I give and deviſe unto the right honourable *Richard* earl of *Burlington* and *Corke*, my dear nephew the honourable *Henry Boyle*, Eſq; of *Caſtle-Martyr* in the county of *Corke*, and Sir *Robert Southwell* of *Kingſale* in the kingdom of *Ireland*, all my eſtate, right, title, intereſt, and demand whatſoever of, in, and unto the caſtle, town, manor, and lands, being nine plow-lands and half, or thereabouts, of *Buttevant*, and the moiety of the lands called *Buttevant* and *Rices* lands in the county of *Corke*, ſeveral years ſince mortgaged to my father and unto me for the ſum of 2000 *l.* ſterling, or thereabouts, and after my father's deceaſe leaſed by me under certain covenants and conditions for thirty one years unto lieutenant colonel *Agmondeſham Muſchampe* for about the ſum of ſix ſcore pounds *per ann.* and now or lately in leaſe to *Denny Muſchampe*, Eſq; and alſo all my eſtate, right, title, intereſt, claim, and demand whatſoever, of, in, and to all and ſingular the towns, lands, tenements, and hereditaments of *Rathenege*, and four pounds chief rent iſſuing out of the lands of *Turmore* and *Ballytramly* by the name of five Caſtles, all lying in the aforeſaid county of *Corke*, and all my eſtate, right, title, intereſt, and demand whatſoever of, in, and to the impropriate rectory of *Adare* alias *Athdare* in the county of *Limerick* in *Ireland*;

Ireland; and alſo all my eſtate, right, title, intereſt, and demand whatſoever of, in, and to the caſtles, towns, and lands, containing two plow-lands and half (be it more or leſs) of *Ballydangan*, *Killcroyne*, and *Ballybrittas*, heretofore mortgaged to my ſaid father for the ſum of 1000 *l.* or thereabouts, to have and to hold all and ſingular the ſaid caſtles, manors, lordſhips, meſſuages, lands, hereditaments, and premiſes of *Buttevant*, *Rices* lands, *Rathenege*, and the 4 *l.* a year chief rent of impropriation of *Adare*, the two plow-lands and half of *Ballydangan*, *Killcroyne*, and *Ballybrittas*, and all other the premiſes and ſum or ſums of money therefore or thereout due and payable unto me, with all my eſtate, right, title, intereſt, claim, and demand whatſoever in and to the premiſes, and every part, member, and appurtenances of them, every or any of them; and alſo all deeds, evidences, and writings whatſoever for or concerning the premiſes or any part thereof, to them the ſaid *Richard* earl of *Burlington*, the honourable *Henry Boyle*, Eſq; and Sir *Robert Southwell*, and their heirs and aſſigns for ever, as fully and in as large and ample a manner, as the premiſes or any part thereof are inveſted in, deſcended, come, given, deviſed or bequeathed unto me the ſaid *Robert Boyle*, upon ſpecial truſt and confidence notwithſtanding, and to and for the only uſes, intents, and purpoſes in and by this will and teſtament limited and declared, and to and for no other uſe, intent, or purpoſe whatſoever: that is to ſay, that they the ſaid *Richard* earl of *Burlington*, the honourable *Henry Boyle*, Eſq; and Sir *Robert Southwell* and their heirs, ſhall, after my death, by and with the advice of my executors, ſell the ſaid reſpective premiſes, and pay the money thereby raiſed, as alſo the profits until ſale, unto my ſaid executors, to and for the uſes herein expreſſed.

ITEM, I give unto my ſaid executors all and every ſuch ſum and ſums of money, as ſhall be raiſed out of or by ſale of my ſaid lands; and alſo all my printed books, goods, chattels, plate, monies, jewels, and credits whatſoever, and herein before bequeathed, limited, or appointed unto them, to and for the only uſes, intents, and purpoſes hereafter alſo in and by theſe preſents limited, expreſſed, and declared, and to and for no other uſe, intent, or purpoſe, whatſoever: that is to ſay, to the intent and purpoſe, that the ſaid *Richard* earl of *Burlington*, lady *Ranelagh*, and *John Warr*, their heirs, executors, adminiſtrators, or aſſigns, ſhall with what convenient ſpeed they can, after my deceaſe, by ſale or compoſition, (though upon terms advantageous to the buyers) ſell and make money of all the ſaid caſtles, lands, mortgages, goods, and chattels, cattle, plate, jewels, and credits by this my laſt will and teſtament bequeathed unto them, or to my ſaid truſtees, *Richard* earl of *Burlington*, the honourable *Henry Boyle*, Eſq; and Sir *Robert Southwell*; and ſhall, in ſome convenient time after my deceaſe, out of the proceed of the ſaid ſale or compoſitions duly and fully ſatisfy, pay, and diſcharge as well all the ſeveral debts and ſums of money (at preſent not amounting to much) which I now do, or at the time of my deceaſe ſhall owe to any perſon or perſons whatſoever, and the charges of the funeral of my body; and alſo all ſuch legal engagements, as I have undertaken to perform to any perſon or perſons whatſoever; eſpecially to my tenants of my manor of *Stalbridge*: and from and immediately after my debts and funeral charges, and all ſuch legacies, as I have above by this my will given and bequeathed, ſhall be diſcharged and paid, and my aforeſaid engagements made good; then my will is, that the reſt,

reſidue,

reſidue, and remainder of the proceed of the ſale of, or compoſition for all the ſaid lands, mortgages, and chattels hereby deviſed and bequeathed unto the ſaid *Richard* earl of *Burlington*, lady *Ranelagh*, and *John Werr*, my ſaid executors, ſhall be by them ſummed up: and that in the firſt place they do diſtribute among the poor (having therein a ſpecial regard unto the poor of the pariſh of *Stalbridge*, and of the pariſh of *Fermoy*, in the county of *Corke*, in the kingdom of *Ireland*, and other pariſhes in that kingdom, where any of my lands do lie) the ſum of 300 *l.* ſterl. and next after the diſtribution thereof the ſum of 200 *l.* ſterl. more amongſt the much diſtreſſed perſons of all qualities, that have been forced or frighted out of *Ireland*, and that ſhall happen to be in or near *London*, *Briſtol*, *Cheſter*, or *Liverpool*, at the time of my deceaſe; which ſums with reſpect chiefly to ſome things, that occurred in a gracious deliverance, that was vouchſafed me in great diſtreſs, I think fit to charge my executors with the payment of after my deceaſe. And alſo in the next place, that after the diſtribution of the ſums of 300 *l.* and 200 *l.* as aforeſaid, and alſo after the payment of the ſum of 66 *l.* 4*s.* to the abovementioned Sir *Robert Southwell*, to be diſtributed by him amongſt the incumbents, reſidents, and widows and children of ſuch as have been incumbents and reſidents in the ſeveral pariſhes, of which I have the impropriations in the kingdom of *Ireland*, and to ſuch of them, and in ſuch proportion, as the ſaid Sir *Robert Southwell* ſhall think moſt needing and deſerving of the ſame; that then they pay to my friends and kindred, named in the ſchedule to this my will annexed, the reſpective ſums therein expreſſed, in the whole amounting to the ſum of four hundred pounds; and after payment

ment thereof I will and deviſe all the reſidue and remainder of my goods and chattels, real and perſonal, and of the money to be raiſed by the ſales aforeſaid by this my laſt will above directed to my ſaid dear ſiſter, the lady *Ranelagh*, with this deſire nevertheleſs, and my will is, that in caſe the ſaid reſiduary part of my ſaid eſtate ſhall amount (as I verily believe it will by far) to more than 800 *l.* ſterl. over and above the legacies and bequeſts above deviſed and diſpoſed of, that then my ſaid dear ſiſter do retain and enjoy, for her own uſe, the ſum of 200 *l.* ſterl. over and above the 300 *l.* debt above remitted to her (my intention being, that ſhe ſhall be benefited in the total to the value of 500 *l.* ſterl. by this my laſt will and teſtament) and this legacy being from the beforementioned reſiduary part of my eſtate, then my will is, that the overplus be laid out by my ſaid dear ſiſter, in caſe ſhe ſurvive me, and in caſe of her death, by my executors, in ſuch manner, as by my codicil or other writing under my hand I ſhall hereafter direct; and for want of ſuch direction for charitable and other pious and good uſes at her or their direction. But I do chiefly recommend unto her and them the laying of the greateſt part of the ſame for the advance or propagation of the Chriſtian religion amongſt infidels; and I hope my relations and friends will believe my intentions to be as good towards them now, as when I thought I had eſtate more conſiderable to diſpoſe of than now I have (eſpecially having of late years loſt, by the breaking of goldſmiths and others, above 1500 *l.* and ſince that, by the unfaithfulneſs of my receiver in *Ireland*, above 900 *l.* and ſince that alſo by the deſtructive inſurrections and war, that hath happened in *Ireland*, the whole income for above two years laſt

paſt

paſt of my eſtate there) and will therefore accept in good part of what legacies ſhall be preſented unto them by my executors, conſidering, that it is the duty of every honeſt man to prefer doing of acts of juſtice before thoſe of kindneſs, when he is not ſure he is able to do both at once.

AND whereas divers lands and tenements, by this my will above directed to be ſold, were originally mortgaged eſtates, to the end therefore that the heirs of the mortgagers may have no juſt cauſe to complain, nor the buyers be miſtaken in their purchaſes, I do hereby declare, direct, and appoint, that in caſe my couſin , the heir of Sir *Piercy Smith*, long ſince deceaſed, ſhall deſire, within the ſpace of one year after notice given him by my executors, to redeem the impropriate rectory of *Adare*, which was mortgaged by the ſaid Sir *Piercy Smith* for 1000 *l.* and ſhall not do the ſame, that then, upon his releaſing of all his right and equity of redemption, the ſum of 66 *l.* ſhall be paid to him out of the proceed and ſale of the ſaid rectory, as a gift or legacy from me to him. But my will is, that the ſaid ſum of 66 *l.* ſhall not be paid unto him, unleſs he releaſe as aforeſaid within one year after the notice aforeſaid. And whereas the caſtle, town, and lands of *Ballydangan*, *Killcroyne*, and *Ballybrittas* aforementioned were heretofore transferred by me to my honoured couſin *Michael*, archbiſhop of *Armagh*, and primate of all *Ireland*, to have and to hold to the ſaid archbiſhop and his heirs, from and after the determination of divers years yet to come and expire: and whereas ſome years ſince, when the ſaid lands were ready to come into my hands, I made a promiſe to leaſe the ſaid premiſes to my abovenamed dear brother, the earl of *Burlington* for all my term and intereſt therein under the rent of 60 *l. per ann.*

or

or thereabouts *de claro*, I do hereby ratify and confirm my ſaid promiſe, and do will and appoint, that he ſhall hold and enjoy the ſame under the rent of 60 *l. per ann.* during all the reſidue of my ſaid term and intereſt, which ſhall be to expire at the time of my death.

Lastly, I do hereby earneſtly deſire my ſaid executors to ſee this my will, and my truſts in them repoſed, faithfully performed, as they hope or deſire to have their own wills faithfully performed. But for as much as by reaſon of the uncertainties of the times it may happen (which God forbid) that my eſtate may meet with ſome further misfortunes, whereby it ſhall be ſo weakened as not to be ſufficient to diſcharge all the legacies by this my will bequeathed; then my will is, that after the payment of 300 *l.* by me deviſed to the poor, and the ſum of 200 *l.* by me deviſed to the much diſtreſſed perſons of all qualities, *&c.* as aforeſaid, mentioned to be in reſpect of a deliverance from a diſtreſs (which I hereby will ſhall be obſerved) that then my other legatees ſhall each of them be reſpectively abated their legacies, in proportion to what my ſaid eſtate ſhall fall ſhort of my ſaid other legacies, above by me deviſed.

In witneſs whereof, I the ſaid *Robert Boyle*, revoking and diſannulling all other and former wills, teſtaments, and bequeſts, have to every ſheet of this my laſt will and teſtament, contained in ſeven ſheets of paper, ſet my hand, and to the laſt of them my ſeal, the day and year firſt above-written.

Robert Boyle.

Signed, ſealed, publiſhed, and declared by the abovementioned *Robert Boyle*, as his laſt will and teſtament,

teſtament, the day and year firſt abovewritten in the preſence of us,

Iſaac Garnier,
John Caddick,
James Oglebey,
William Johnſon.

A ſchedule in my will referred unto, for the diſpoſition of 400 *l.* which I will ſhall be paid to the perſons herein after ſet down, in ſuch proportion to each perſon, as is herein expreſſed: *viz.*

IMPRIMIS, to my honoured and dear nephews, the earl of *Barrimore*, 30 *l.* the earl of *Ranelagh*, 30 *l.* *Charles* lord *Clifford*, 30 *l.* Capt. *Robert Fitz-gerald*, 30 *l.* Capt. *Henry Boyle*, 30 *l.*

ITEM, to my honoured and dear nieces, the counteſs dowager of *Thanet*, 30 *l.* the counteſs dowager of *Clancarty*, 30 *l.* the lady viſcounteſs of *Powers-Court*, 30 *l.* the lady *Francis Shaen*, 30 *l.* the lady *Catharine Fitz-gerald*, 30 *l.* and to Mrs. *Elizabeth Melſter*, not to make a difference between her and my other nieces in my affection, no more than there is in their relation to me, but becauſe of her peculiar circumſtances, I give 100 *l.*

Robert Boyle.

THIS is the ſchedule referred to and mentioned in the fifth ſheet of this the laſt will and teſtament of the honourable Mr. *Robert Boyle*, as a part thereof, and was by his appointment annexed hereunto, and, at and before the enſealing and publiſhing this his will, ſigned by him in the preſence of us,

James Garnier,
John Caddick,
James Oglebey,
William Johnſon.

WHEREAS

WHEREAS an act of parliament in *Ireland*, intitled, *An Act for the better Execution of his late Majesty King Charles the second's gracious Declaration of the Settlement of his Kingdom of Ireland, and Satisfaction of the several Interests of Adventurers and Soldiers and others the Subjects there*, it was enacted (amongst other things) that I *Robert Boyle*, my executors, administrators, and assigns, should and might, for and during the term of thirty one years, have, hold, and enjoy all and singular the impropriations of or belonging to the respective abbies late dissolved, monasteries, religious houses, priories or parishes of *Ballytubber*, in the county of *Mayo*, *Knockmoy-Kireleulta Iran, alias*, St. *Mary*'s *Athenree*, and *Dunmore* in the county of *Galway*, and *Tyhone* in the county of *Tipperary*, or any of them, together with all the impropriate tythes and rectories and appurtenances of the said impropriations, tythes, and rectories, or belonging thereunto, which belong unto, or by that act were vested in his late Majesty to any of the uses therein before mentioned, according to the tenor and effect of such grant or grants, as had, or then were, or then after should be passed unto me thereof by his late Majesty's letters patents in that behalf, I or they paying yearly for the same double the exchequer or crown rent reserved thereupon in the year 1641 : now I the said *Robert Boyle* do hereby give and devise to my dear brother *Richard* earl of *Burlington* and *Corke*, in *Ireland*, the right honourable *John* lord viscount *Massereen*, *Clotworthy Skeffington*, Esq; of the county of *Antrim* in *Ireland*, and Sir *Peter Pett*, Knt. their executors, administrators, and assigns, the fourth part (the whole in four parts to be divided) of the said impropriations and premises in and by the said act granted, limited, or appointed by me to be held

and

and enjoyed during the ſaid term of one and thirty years upon truſt, to be by them employed and diſpoſed for ſuch good and pious uſes, as I ſhall from time to time declare or appoint it, or in default of ſuch appointment, after the death of me the ſaid *Robert Boyle*, then for ſuch pious and good uſes, as my ſaid truſtees in their beſt judgments and conſciences ſhall think to be moſt agreeable to my intent. And I deviſe the one moiety or half part of the other three parts of the premiſes unto the executors or aſſigns of my late dear ſiſter-in-law *Margaret*, counteſs dowager of *Orrery*, for all the reſidue of the term, that ſhall be to come at the time of my death. And as to the other moiety of the ſaid three parts, I deviſe the ſame to the right honourable *Elizabeth*, counteſs dowager of *Angleſey*, her executors and aſſigns, for all the reſidue of the term, that ſhall be to come at the time of my death; and in caſe of her dying before me, I deviſe the ſame to her executors, adminiſtrators, and aſſigns.

IN witneſs whereof I have hereunto ſet my hand and ſeal the 25th day of July, in the year of our Lord God 1691.

Robert Boyle.

SIGNED, ſealed, and publiſhed by the abovenamed *Robert Boyle*, as part of his laſt will in the preſence of us,

Iſaac Garnier,
Robert St. Claire,
William Johnſon,
James Oglebey.

MEMORANDUM, that whereas I had thoughts of diſpoſing to good uſes of what money came to my hands on the ſcore of my ſhare of the grants mentioned

mentioned in the codicil, whereunto this paper is annexed, to be granted to me by his late Majeſty King *Charles* the ſecond, in the act of ſettlement of his kingdom of *Ireland:* and whereas I myſelf living in *England*, found it difficult to meet with perſons every way qualified to be employed in the laying out of ſuch money to the uſes I deſigned, by which means there remains yet undiſpoſed of the ſum of 200 *l.* which is now in the hands of the Eaſt-India company of merchants of the city of *London*, for ſecurity whereof I have their writing or bill under their common ſeal, dated the 20th day of May 1681; which ſaid writing or bill, together with the benefit, intereſt, and increaſe thereof, I have, by indenture of aſſignment aſſigned, transferred, and ſet over unto Sir *Henry Aſhurſt*, of *London*, Bart. by the name of *Henry Aſhurſt*, of *London*, Eſq; in truſt (as by the ſaid indenture dated the 9th day of January 1684, relation being thereunto had, may appear) to and for ſuch uſes, intents, and purpoſes, as I ſhould at any time afterwards direct or appoint: and I having hitherto made no direction or appointment, do hereby, in caſe I diſpoſe not otherwiſe of it, or any part of it, during my life-time, deviſe, leave, and bequeath the ſaid ſum of money, with the benefit, intereſt, and increaſe thereof, to my truſtees, *Richard* earl of *Burlington* and *Corke* in *Ireland*, the right honourable *John* lord viſcount *Maſſereen*, *Clotworthy Skeffington*, Eſq; and Sir *Peter Pett*, their executors, adminiſtrators, and aſſigns, to be by them received and diſpoſed of to the ſame uſes, for which I intruſt them with my ſhare of the impropriations of *Ballytubber*, *Knockmoy*, *&c.* mentioned in the foregoing codicil. And in caſe that within ſome reaſonable time after my deceaſe my title to the premiſes, or any of them, or to the money

money received by me on the score of any of them, shall not be questioned, or like to be called in question, to the prejudice of my executors, then my desire is, that the trustees may distribute the said sum, according as their consciences and discretion shall direct them, among the preaching ministers (whether parsons, rectors, vicars, or curates) that have bestowed their pains as incumbents in the parishes or churches granted to me by the aforesaid act, since they came into my quiet possession, or to their poor widows or children, the said trustees being desired to have regard in the distribution to the piety and orthodoxness of the parsons, to their pains and faithfulness in performing the work of their ministry, to the smalness of the worth of their livings, and to the considerableness of income they yield the impropriation. And by this direction I desire and charge my said trustees to take their measures in disposing of the future income or proceed of all that I have intrusted them with; only in case it shall appear to them for weighty reasons, that somewhat may be spared for some other eminently good and pious use or uses, they are left at liberty to use their discretion therein; provided the main part of the above-mentioned money and future income be employed for the encouragement of pious preaching ministers in the said impropriations.

WHEREAS I have an intention to settle in my life-time the sum of 50 *l. per ann.* for ever, or at least for a considerable number of years, to be for an annual salary for some learned divine, or preaching minister, from time to time, to be elected and resident within the city of *London*, or circuit of the bills of mortality, who shall be injoined to perform the offices following, *viz.* first to preach eight sermons in the year for proving the Christian

religion againſt notorious Infidels, *viz.* Atheiſts, Theiſts, Pagans, Jews, and Mahometans, not deſcending lower to any controverſies, that are among Chriſtians themſelves; theſe lectures to be on the firſt monday of the reſpective months of January, February, March, April, May, September, October, November, in ſuch church, as my truſtees herein named ſhall from time to time appoint.

SECONDLY, to be aſſiſting to all companies, and encouraging of them in any undertaking for propagating the Chriſtian religion to foreign parts.

THIRDLY, to be ready to ſatisfy ſuch real ſcruples, as any may have concerning theſe matters, and to anſwer ſuch objections or difficulties, as may be ſtarted, to which good anſwers have not yet been made.

AND whereas I have not yet met with a convenient purchaſe of lands of inheritance for accompliſhing ſuch my intention, I do therefore will and ordain (in caſe it ſhall pleaſe God to take me hence before ſuch ſettlement be made) that all my meſſuage or dwelling-houſe in St. *Michael's Crooked-Lane, London*, which I hold by leaſe for a certain number of years yet to come, ſhall ſtand and be charged during the remainder of ſuch term as ſhall be to come and expire at the time of my deceaſe, with the payment of the clear yearly rent and profits, that ſhall from time to time be made thereof (ground-rent, taxes, and neceſſary reparations being firſt to be deducted) to be paid to ſuch learned divine, or preaching miniſter, for the time being, by quarterly payments, that is to ſay, at Midſummer, Michaelmas, Chriſtmas, and Lady-Day, the firſt payment to begin at ſuch of the ſaid feaſts, as ſhall firſt happen next after my deceaſe, and ſhall be made to ſuch learned divine, or preaching miniſter, as ſhall be in the employment at the time

of

of my death, during his continuance therein. And I will, that after my death Sir *John Rotheram*, ſerjeant at law, Sir *Henry Aſhurſt*, of *London*, Knt. and Bart. *Thomas Teniſon*, doctor in divinity, and *John Evelyn* ſenior, Eſq; and the ſurvivors or ſurvivor of them, and ſuch perſon or perſons as the ſurvivor of them appoint to ſucceed in the following truſt, ſhall have the election and nomination of ſuch lecturer, and alſo ſhall and may conſtitute and appoint him for any term not exceeding three years, and at the end of ſuch term ſhall make a new election and appointment of the ſame or any other learned miniſter of the Goſpel reſiding within the city of *London*, or extent of the bills of mortality, at their diſcretions. And I do hereby will and ordain this my codicil to be a part of my laſt will and teſtament. Witneſs my hand and ſeal, this 28th day of July in the year of our Lord 1691.

Robert Boyle.

SIGNED, ſealed, publiſhed, and declared by the honourable *Robert Boyle*, to be a codicil to and part of his laſt will and teſtament, in preſence of us,

Iſaac Garnier,
Robert St. Claire,
James Oglebey,
William Johnſon.

WHEREAS ſince the making and executing of my laſt will and teſtament, ſeveral perſons are brought to my remembrance, whom I ſhould have made legatees in my ſaid will, had I thought upon them before my finiſhing thereof; and being unwilling, that they ſhould be wholly deprived of my intended kindneſs to them; wherefore I have

thought fit to inſert their ſeveral names and legacies in this my codicil, which I hereby declare to be a part of my ſaid will.

IMPRIMIS, I give and bequeath unto my couſin Mrs. *Catharine Molſter*, daughter of my niece Mrs. *Elizabeth Molſter*, the ſum of 100*l.* to be paid unto her, when ſhe ſhall have attained to her age of 21 years, or upon the day of her marriage, which ſhall firſt happen.

ITEM, I give and bequeath unto Sir *Robert Southwell* the ſum of twenty pounds.

ITEM, I give and bequeath unto Sir *Henry Aſhurſt*, Knt. and Bart. the ſum of twenty pounds.

ITEM, I give and bequeath unto Sir *William Aſhurſt*, Knt. and alderman of the city of *London*, the ſum of twenty pounds.

ITEM, I give and bequeath unto Sir *John Rotheram*, ſerjeant at law, the ſum of twenty pounds.

ITEM, I give and bequeath unto my ſervant *William Johnſon* the ſum of fifteen pounds.

ITEM, I give and bequeath unto ſuch a number of the French proteſtant refugees inhabiting in and about the cities of *London* and *Weſtminſter*, as my executors ſhall think fit to pitch upon, and ſhall judge to be moſt neceſſitous, the ſum of 100*l.* to be divided amongſt them, according to the diſcretion of my ſaid executors.

AND whereas *Nicholas Courtney*, in the *Inner-Temple*, Eſq; is and hath been for ſeveral years indebted unto me in the ſum of 150*l.* principal money, beſides intereſt for the ſame during the time he hath had the ſaid money; now in conſideration, that the ſaid *Nicholas Courtney* hath done ſome buſineſs for me in my life-time, I do hereby remit and fully diſcharge him, his executors, and adminiſtrators of and from all the intereſt money, which now is or ſhall be due unto me from him or them at

at the time of my deceaſe. And I do hereby declare, that this codicil ſhall be added to my laſt will and teſtament, and be a part thereof. In witneſs whereof I have hereunto ſet my hand and ſeal, the 30th day of July, in the third year of the reign of our ſovereign lord and lady, King *William* and Queen *Mary*, over *England*, *&c.*, *Annoque Domini* 1691.

Robert Boyle.

SIGNED, ſealed, publiſhed, and declared by the honourable *Robert Boyle*, Eſq; as a codicil to be added to his laſt will and teſtament, and to be a part thereof, in the preſence of us,

Iſaac Garnier,
Robert St. Claire,
Jo. Caddick.

WHEREAS I have in and by my laſt will and teſtament impowered my moſt honoured and deareſt brother the right honourable *Richard* earl of *Burlington* and *Corke*, the honourable *Henry Boyle*, Eſq; and Sir *Robert Southwell*, my truſtees, to grant, bargain, ſell, and diſpoſe of to the beſt advantage, immediately after my deceaſe, all that the manor and lands of *Buttevant* and *Rices* lands in the county of *Corke* within the kingdom of *Ireland*, with all and ſingular their rights, members, and appurtenances for and during ſo long time and term, as there ſhould be then to come and unexpired in the ſaid premiſes, in caſe the ſame ſhould not be redeemed; and have therein declared, that the money to be raiſed by the ſale or redemption thereof ſhould be by my ſaid truſtees paid unto my executors: and having for a long time determined to make ſome real expreſſions of

the great reſpects and kindneſs, which I have for and bear to my aboveſaid brother, and to the right honourable *Charles* lord *Clifford*, (ſon and heir apparent of my ſaid brother,) my honourable nephew, by making ſome gift or preſent to the off-ſpring of my ſaid brother; now in proſecution of my ſaid determination, I do hereby publiſh and declare, that my executors ſhall make an even and equal dividend of the ſaid purchaſe or redemption money, when paid to them by my ſaid truſtees as aforeſaid, and one moiety or half part thereof, my will is, that my executors ſhall pay back unto my ſaid brother the earl of *Burlington* and *Corke*, upon ſpecial truſt and confidence, nevertheleſs, and to the uſe, intent, and purpoſe herein aftermentioned and declared; that is to ſay, that he the ſaid earl ſhall apply, lay out, pay, and employ the ſame moiety or half part of the ſaid money within three months after his receipt thereof for the uſe and beſt advantage of ſuch one or more of the younger children now unmarried of the ſaid lord *Clifford*, and in ſuch proportion, if to more than one, as to him the ſaid earl, his executors, adminiſtrators, or aſſigns, ſhall ſeem fit; and under this further truſt, that in caſe he the ſaid earl, his executors, adminiſtrators, or aſſigns, ſhall fail to ſettle and diſpoſe of the ſame, according to the ſaid truſt, within three months after the ſame is paid to him by my executors as aforeſaid, that then he the ſaid earl, his executors, adminiſtrators, and aſſigns, ſhall ſtand poſſeſſed of the ſaid moiety or half part of the purchaſe or redemption money, ſo paid to him as aforeſaid, in truſt for all the younger children now unmarried as aforeſaid, of him the ſaid lord *Clifford*, ſhare and ſhare alike. And as for the other moiety or half part of the ſaid purchaſe or redemption money, which will

remain

remain in the hands of my executors, I do hereby publiſh and declare ſhall be employed by them to the uſe or uſes in my ſaid laſt will declared and appointed. And this codicil I do hereby declare ſhall be added to my laſt will and teſtament, and be a part thereof. In witneſs whereof I have hereunto ſet my hand and ſeal the firſt day of Auguſt in the third year of the reign of our ſovereign lord and lady King *William* and Queen *Mary* over *England, &c. Annoque Domini* 1691.

Robert Boyle.

SIGNED, ſealed, publiſhed and declared by the honourable *Robert Boyle*, Eſq; as a codicil to be added to and be a part of his laſt will and teſtament in the preſence of us,

Iſaac Garnier,
Robert St. Claire,
William Johnſon,
James Oglebey.

WHEREAS I have in and by my laſt will and teſtament ſettled and appointed the ſum of 200 *l.* ſterling to be paid and diſtributed by my executors to and amongſt ſuch diſtreſſed Iriſh proteſtants of all qualities, as have been either forced or affrighted out of the kingdom of *Ireland* ſince the late calamities there, and that ſhould happen to be in or near *London*, *Briſtol*, *Cheſter*, or *Liverpool*, at the time of my deceaſe: now in regard of the preſent exigencies and preſſing neceſſities of ſeveral of thoſe perſons, I have thought fit to allot and give out myſelf, as a part of that my intended charity, the ſum of 50 *l.* to be divided and diſtributed amongſt ſuch of them, as I do judge moſt neceſſitous for their preſent relief; ſo that now my will is, that my executors ſhall be obliged to pay and diſtribute

to and amongſt the ſaid diſtreſſed Iriſh proteſtants in my laſt will mentioned as aforeſaid, no more than the ſum of 150*l.* (being the reſidue thereof) for the reaſon aforeſaid. And this my codicil I do hereby ſignify and declare ſhall in order thereto be added to and be a part of my laſt will and teſtament. In witneſs whereof I have hereunto ſet my hand and ſeal this fifth day of Auguſt in the year of our Lord God 1691.

Robert Boyle.

SIGNED, ſealed, publiſhed, and declared by the honourable *Robert Boyle*, Eſq; for and as a codicil to be added to and be a part of his laſt will and teſtament, in the preſence of us,

Robert St. Claire,
Tho. Smith,
William Johnſon,
Ja. Oglebey.

WHEREAS I am juſtly ſenſible of the great trouble, that I ſhall give my deareſt and moſt honoured brother and ſiſter, the earl of *Burlington* and *Corke*, and the lady viſcounteſs *Ranelagh*, by my having conſtituted and ordained them to be two of the executors in truſt of my laſt will and teſtament; which, conſidering their age and quality, they may be no way fit to undergo; to the intent therefore, that they may be eaſed, as much as in me lies, from all the avoidable trouble of that office, I do hereby declare, that I have engaged my other executor in truſt, Mr. *John Warr*, jun. my preſent ſervant, to take upon him more immediately the troubleſom part of the execution of my ſaid laſt will and teſtament, which he is to proſecute by and according to the direction and appointment

pointment of my other two executors, and not abſent himſelf from the ſame during the term or terms herein after mentioned, for which he ſhall happen to be employed in the execution of the ſaid truſt, by travelling above one day's journey from *London*, unleſs it ſhall be on extraordinary occaſion, and with the conſent of my other two executors. In conſideration whereof I do hereby give, deviſe, bequeath, and ſettle upon him, the ſaid *John Warr*, the yearly ſum of 40*l.* for his care and pains in the execution of the ſaid truſt; which, my will is, ſhall be continued to him as an yearly ſalary for the ſpace of three years from the time of the proving my ſaid will, provided the diſcharge of my ſaid truſt require ſo long time; otherwiſe my will is, that this ſalary ſhall be continued but for the ſpace of one year, or at moſt but in proportion for ſuch further time, as ſhall be neceſſary for the diſcharge of the then remaining part of the ſaid truſt. And my further will is, that beſides the ſalary abovementioned, my ſaid executor *John Warr* ſhall be allowed all ſuch neceſſary and reaſonable charges, as he ſhall from time to time expend or be put unto in the performance and execution of the ſaid truſt. Laſtly, my will is, that this codicil ſhall be added to and be a part of my laſt will and teſtament. In witneſs whereof I have hereunto ſet my hand and ſeal the eleventh of September in the third year of the reign of our ſovereign Lord and Lady *William* and *Mary* by the grace of God of *England*, *Scotland*, *France*, and *Ireland*, King and Queen, defenders of the faith, *&c.* and in the year of our Lord God 1691.

Robert Boyle.

SEALED,

SEALED, publiſhed, and declared by the honourable *Robert Boyle*, Eſq; for and as a part of his laſt will and teſtament, in the preſence of us,

Robert St. Claire,
Tho. Smith,
Jo. Caddick,
Will. Johnſon.

WHEREAS in and by my laſt will and teſtament bearing date on or about the 18th day of July laſt paſt I did conſtitute and appoint my deareſt ſiſter *Ranelagh* one of my executors in truſt: and whereas it hath pleaſed God ſome few days ſince to take unto himſelf my dear ſiſter; I do therefore in her ſtead and place hereby make, ordain, and appoint my very loving friend Sir *Henry Aſhurſt* of the pariſh of St. *Sepulchre*'s in the county of *Middleſex*, Knt. and Bart. to be one of the executors in truſt of my ſaid laſt will and teſtament. And I do hereby deſire and impower my ſaid executor, together with my other two ſurviving executors in truſt in my ſaid laſt will named and appointed, to take ſpecial care to diſcharge the truſts by me therein in them repoſed, and more eſpecially that part of my will, that I had particularly recommended to the care of my deareſt ſiſter *Ranelagh* deceaſed. And I do hereby give and bequeath unto the ſaid Sir *Henry Aſhurſt* the ſum of 20*l.* to be laid out by him in a piece of plate. And I do hereby confirm all the appointments of my ſaid laſt will and teſtament, excepting only what therein relates to my ſaid deceaſed ſiſter *Ranelagh*, which I do hereby revoke. And I do hereby alſo confirm all other codicil or codicils, that have been made by me ſince the date of my aboveſaid laſt will and teſtament. In witneſs whereof I have hereunto ſet my hand

hand and ſeal the 29th day of December, in the third year of the reign of our ſovereign Lord and Lady King *William* and Queen *Mary* over *England*, &c. *Annoque Domini* 1691.

Robert Boyle.

SIGNED, ſealed, publiſhed, and declared by the honourable *Robert Boyle*, Eſq; as a codicil to and a part of his laſt will and teſtament, in the preſence of us,

Iſaac Garnier,
Robert St. Claire,
Tho. Smith,
William Johnſon,
James Oglebey.

NUMBER: III.

Letters relating to the edition of the Iriſh Bible printed and diſtributed at the expence of Mr: *Boyle*. See *Life*, p. 294. and Works, Vol. V. p. 602——614.

I.

Biſhop of Meath *to Mr.* Boyle.

Dublin, Auguſt 4, 1680.

Honourable Sir,

THE incloſed, from my good friend Dr. *Sall*, ſhould have been (as you find) ſooner with you, but that I made bold to re-

ſerve

ſerve the paſſing it to you by my good lord the earl of *Ranelagh*, as now; deſigning in both, to be repreſented, and ſo better known to you, than by a bare letter from a ſtranger, I mean myſelf.

By Dr. *Salt* I underſtand, Sir, your zeal for having this poor ignorant people, the Iriſh, informed in the true knowledge of God in their own language, by reprinting the new teſtament, and common prayer in Iriſh, theſe being now out of preſs, and the books of them extant hardly found.

In addition whereunto is herein offered, the publiſhing of the old teſtament alſo in Iriſh, together with the pſalms in metre fitted to our ordinary church tunes, tranſlated by means and procurement of that learned and pious prelate, Dr. *Bedell*, ſometime biſhop of *Kilmore* in *Ireland*, and provoſt of *Trinity* college in *Dublin*; whoſe heart God had ſtirred up thereunto zealouſly. This was by that learned biſhop himſelf compared with the original, and finiſhed *anno* 1640. After whoſe death it came into mine hand, where it now continues in ſheets, and MSS. This compleating the bible in Iriſh, and added to what is already printed, would be a work greatly to God's glory, in bringing, by his grace, many from darkneſs to light, and of deſerved praiſe to the happy undertaker.

I had once thoughts of repreſenting this to our next parliament here, hoping for public allowance, and ſupplies thereby, toward it. But in diſcourſe with ſome concerning it, I found it almoſt a principle in their politics, to ſuppreſs that language utterly, rather than in ſo public a way to countenance it. This occaſioned what I have ſome time written of that, in an epiſtle to the earl of *Eſſex*, then lord lieutenant of *Ireland*, prefixed to a ſmall tract, which is therefore herewithal for your

your perusal; accompanied with another, on another occasion, both under, Sir, your censure.

As for the Irish letters stamped for the first printing here of the common prayer, and new testament; they had passed from hand to hand of many his Majesty's printers in *Dublin* successively, until by covetousness of one, into whose hands they fell unhappily, they were by the Jesuits gotten away, and are now at *Doway*, for Irish prints; some of which I have seen, to my grief, sent hither, further corrupting the people. So as there is nothing left of what was formerly, towards the printing of Irish here, if it should be required.

I HAVE dealt with our present provost of this college of *Dublin*, that he, according to what was sometimes by Dr. *Bedell*, his predecessor, practised, would encourage the reading Irish; and that Irish prayers, *&c.* as others, might be publicly used in the college, for thereby fitting out labourers for that harvest of souls, which may, by God's blessing such endeavours, be hopefully expected. But even for that, are books wanting, or not sufficient to be found for it. Therefore the reprinting what is now out of press, if there be no more, will be for that good work necessary.

I REFER all, Sir, to your consideration, whose heart God hath, I find, enlarged in this, as otherwise eminently, to your lasting remembrance, and praise every way. And desiring God's blessing you in all your ways, I rest,

Honourable Sir,

Your most humble servant,

Henry Midensis.

Mr.

II.

Mr. Boyle *to the biſhop of* Meath.

[April 8, 1681.]

My Lord,

I HOPE your lordſhip did long ſince receive the letter I had the honour to write to you, when I ſent you the forms of ſubſcription, ſucceſsfully employed here, in carrying on the publication of the Welſh bible. And though I have not, ſince I ſent that packet, which was above two months ago, received any intimation, that it came ſafe to your hands, yet I thought it unfit to trouble your lordſhip with another letter ſince that time, becauſe I could not give you in it any good account of the progreſs of our Iriſh teſtament; the preſs, that was to print it, having, as well as others here, been ſo taken up with pamphlets of ſeveral ſizes and kinds, that till of late our work was almoſt quite laid aſide; but now, for want of other employment, I hope the printer will reſume it, and vigorouſly purſue it, partly becauſe he has promiſed to do ſo, and partly becauſe he is ſo far advanced, that he ſays, there is but five or ſix ſheets remaining to be printed off. But I fear the preface will loſe as much time, becauſe the moſt intelligent divine I have adviſed with here about it is earneſt to have the preface, that the Janſeniſts have premiſed to their tranſlation of the new teſtament; which being a piece of great learning and piety, and much eſteemed by the better ſort of the Romaniſts themſelves, it is judged, that if it be publiſhed in Engliſh with no more alterations and additions, than the exigency of our deſign requires, it may

may very much recommend the introduction of the Iriſh teſtament to the better ſort of Papiſts themſelves, for whoſe benefit it was chiefly made. Mr. *Reily*, that corrects the preſs for the Iriſh teſtament, having been bred in *France*, undertakes the turning this preface into Engliſh; which, as ſoon as he has done, for it is no ſhort one, I ſhall, God permitting, ſend it into *Ireland* to be peruſed by your lordſhip and my worthy friend Dr. *Sall*, and to be made ſuch uſe of, as you ſhall upon the place think fit. I formerly gave notice, that I had ordered my agent in *Munſter* to return up to *Dublin* 50*l.* in lieu of a ſubſcription towards the printing of the old teſtament in Iriſh; but Sir *John Champanty* having more than once taken notice to me, that the money lies in his hands, I now think it neceſſary to advertiſe your lordſhip of it, and that a direction to pay it in, when your lordſhip ſhall call for it, for the uſe newly mentioned, is intended to be, by the next poſt, renewed to him by,

My lord,

Your lordſhip's moſt humble
and moſt obedient ſervant.

III.

Mr. Boyle *to Sir* John Champanty.

London, April the 9th, 1681.

SIR,

FINDING by my ſiſter *Ranelagh*, that you have been pleaſed to receive fifty pound for my uſe, and are deſirous I ſhould diſpoſe of it as ſoon as there is occaſion; I think myſelf obliged to return you my humble thanks for the favour of letting it lie in ſuch ſafe hands as yours, and to

inform you, that I intend to employ it by way of contribution to the printing of the old teſtament in the Iriſh tongue, which is carrying on by the right reverend the lord biſhop of *Meath*, and ſome other worthy perſons in your parts. And therefore if his lordſhip, or any duly authoriſed by him, ſhall call to you for the money to be employed to that purpoſe, I deſire you would be pleaſed upon his acquittance to let him forthwith have it; whereby you will further oblige,

SIR,

your moſt humble ſervant,

Robert Boyle.

The ſuperſcription,

Theſe to my honoured Friend
Sir John Champanty,
preſent at Dublin.

IV:

Biſhop of Meath *to Mr.* Boyle.

Dublin, May 3, 1681.

Honourable Sir,

I HAVE now two of yours (of the 8th and 19th paſt) and thereby underſtand my loſs of a packet not received, which I greatly deſire may be retrieved. (There is nothing from you not deſirable.)

As to that preface of the Janſeniſts, premiſed to their tranſlation of the new teſtament, propoſed to be prefixed to our Iriſh new teſtament; conſidering their refined principles, and even that very deſign of their publiſhing the holy ſcripture in a vulgar tongue; and that that preface paſſeth among the

the better ſort of Romaniſts themſelves; ſo rendering all, probably, more acceptable to that ſide; it having alſo that approbation you mention of thoſe eminent among us; on all, although I have not yet ſeen it, yet can I not but well approve of your thoughts for tranſlating, printing, and affixing that to our Iriſh new teſtament alſo. Dr. *Sall* is now here with me, to whom I imparted your mind in this, in which is his concurrence alſo.

I HAD, from Dr. *Sall*, ſome time ſince, my firſt intimation of your ſetting yourſelf on that good work of reprinting our Iriſh new teſtament, which I then underſtood to have been intended of both, the common prayer book and new teſtament alſo; both being neceſſary, and out of preſs, and hardly found. But now I find it from yourſelf (in yours of the 19th) that you had not then ſo much as knowledge of ſuch a thing in being, as the common prayer in Iriſh, and publiſhed.

So as our work herein is thereby enlarged; both for printing the old teſtament in Iriſh, which hath not been done hitherto; and for reprinting the common prayer alſo; that ſo all (with what you are now doing) may be complete.

YOUR letters for the work in hand will ſo far eaſe that charge; and what you propoſe of ſubſcription for printing the old teſtament will take in all.

THAT, which leads to this, would be the digeſting that propoſal for ſuch a ſubſcription: that it be not overcharging as to particular ſums; and that it be ſufficient in the total to anſwer the whole work. It may be, what hath been already ordered that way, as to the Welſh bible (which I have not ſeen) may be for this alſo. In ordering which, as to *Ireland*, (for procuring ſubſcriptions, from our clergy in our ſeveral dioceſes, and from others here,

and in the ſeveral provinces, as it ſhall require;) this ſhall be (if you pleaſe) my charge herein; if ſome other be at leiſure for furthering ſomething that way there alſo. The ſooner that the ſcheme for this is conſidered and prepared, the better; that by that time that the new teſtament and preface to it (which will take up ſome time) may be perfected, your letters for that work may be free for this, to be done here; or this here to be ſent thither, for being ordered by the ſame preſs, and overſeer, as is the new teſtament at preſent: in which Mr. *Reily*, your overſeer, well deſerves.

As for your 50 *l.* left in Sir *John Champanty*'s hand, in way of ſubſcription toward the printing the old teſtament, I deſire, that this may be yet under your own ordering, until that work ſhall be under a fuller proſpect, one way or other. In the mean time, and ever, you have your praiſe of piety, bounty, and beneficence, among all good men, in this, and other your good every way manifeſted, and not to be forgotten.

I HAVE communicated to the worthy provoſt of this our college, what you were pleaſed to declare of your intentions for encouraging our Iriſh reader and inſtructor here: which is thankfully accepted, and in your ſo taking notice of that work, will it be much advanced. Be pleaſed, that what in that kind is deſigned may be rather in money than otherwiſe; of which the quantum will be ſufficient, as it is propoſed: that alſo this be conſigned to the provoſt to be ordered accordingly.

As to the teaching and learning Iriſh; that perſon hath read (I hear) a public lecture in the college hall; to which, of the ſtudents, about 80 already reſort: divers alſo of the fellows, and chief of that ſociety, frequent his chamber privately for inſtruction

inſtruction in that kind. And even the provoſt himſelf (not very many years ſince tranſplanted out of *Oxford* hither, and not many months ſince his promoting this good work within this his charge) is become ſo great a proficient already in the knowledge of the Iriſh, that to the teacher's admiration (from whom I have it) he writes the Iriſh perfectly; and is with his own hand tranſcribing the Iriſh grammar, intended for your peruſal and farther conſideration. Of our having ſuch a grammar in our hand, ſome intimation hath been formerly given you. There is, I hear, an Iriſh dictionary in *Bodley*'s library, which the provoſt hath ſent for, for preſent uſe, and to be reſtored.

I SHALL ſhut this up, with what I have in my laſt given you joyfully, and with what is ſince then, of the progreſs of Iriſh preaching in this college chapel. The firſt ſunday in each month is deſigned for that. The firſt of that (as you heard) was on Eaſter-day laſt (a day, you well obſerve, for that, and I hope, auſpicious.) The next, was on that day month, May-day laſt (the ſecond of that kind) when the auditory was ſo enlarged, that the whole area of the chapel, with rooms adjoining, above, and below, were unuſually thronged. Among thoſe, were the lord viſcount *Dillon*, and other eminent perſons, and others of the Romiſh profeſſion: which we take for a preſage of yet greater good to the church and kingdom at large, from this happy ſeminary. The lord lieutenant intends to afford his preſence at this exerciſe ſometime, for farther countenance, and encouragement to it. Dr. *Ball* deſigns to preach there next in Iriſh. Let God's bleſſing be on this, and on all, whoſe hearts are ſtirred up by his ſpirit, in this great work; in which you have, I doubt not, a double portion, who firſt promoted it in what you are there do-

ing happily. To his grace and goodneſs I leave you; and reſt,

Honourable Sir,

your moſt humble and real ſervant,

Henry Midenſis.

HAVING ſome curioſity for obſerving the late comet, I gave what was on that collected to the provoſt here; from whom I ſend in return the incloſed paper, with which I preſent you, as well knowing what uſe to make of it. He was well fitted for ſuch obſervation by inſtruments which he had, and none other that I know hereabout.

V.

Biſhop of Meath *to Dr.* Narciſſus Marſh, *provoſt of* Trinity *college in* Dublin.

Oſberſton, Aug. 1, 1681.

Reverend Sir,

I RECEIVED yours of the 25th paſt, for which I thank you. My leaving *Dublin* was (I found) about the time of your greateſt trouble, the commencement; and my retiring then into the country, where now I am, was by reaſon of ſome indiſpoſition attending me in that city: both which occaſioned my not waiting on you on my going thence, whereby we might have diſcourſed more freely on the matters in Mr. *Boyle*'s letter, which I ſent you for your peruſal; that occaſioning yours to me mentioned. Nor could I well return him an anſwer to his, until I had firſt adviſed with you concerning it.

IN

IN former letters from that worthy perſon, Mr. *Boyle* (like whom, in his way, the age affords not any) I found him zealouſly intent on prefixing the Janſeniſts late prefaces of the new teſtament in French, to the Iriſh new teſtament now under his hand in the preſs; hoping thereby (I conceive) to gain more in the world, in joining ſo far with thoſe of that perſuaſion; they drawing toward us, although not cloſing with us. Hereunto, on that conſideration, I then alſo inclined, although I had not yet ſeen what thoſe prefaces imported.

SINCE then, I had, by the hand of Dr. *Sall*, the book of the new teſtament in French, with thoſe that Janſeniſts prefaces prefixed. Which their prefaces, for my better information, I had tranſlated, being myſelf a ſtranger to the French.

IN reading which I obſerved harſh reflections on ſome of the more eminent and leading proteſtant reformers; alſo other paſſages concerning the difficulty of tranſlations out of the original, on the reaſons therein mentioned: this taking up much paper, and more time, and labour than could be now well ſpared in tranſlating that again out of French into Iriſh.

ON which I preſume to offer mine own thoughts, that I know not how convenient would be our tacit owning ſuch reflections on ours as juſt; and whether that might not ſtick with ſome, and not pleaſe others? Or profeſſing to give the world a true tranſcript of thoſe the Janſeniſts prefaces, whether it would be ingenuous by picking and chuſing, to omit any part thereof, on a private account; I mean, the omitting (if that ſhould be) thoſe reflecting paſſages, which might offend? And whether ſuch omiſſions might not diſguſt the Janſeniſts themſelves, whom we would indulge? And whether, either in omitting or not omitting thoſe re-

flecting paſſages on ours, we ſhould not equally gratify the common adverſary?

In this, I would willingly adviſe with you, Sir; but know not how you can give any judgment herein at preſent, without the firſt peruſal of thoſe prefaces, which you cannot now compaſs, the book being locked up in my ſtudy in *Dublin*, and not to be there readily found but by my ſelf: which yet ſhall not hinder, if you pleaſe to command my going hence to *Dublin*; which on that occaſion I ſhall do, on intimation by you therein given.

As for my ſelf: conſidering what hath been before offered; as alſo the delays to the principal part of the work, the publiſhing of the new teſtament in Iriſh; of which there is ſuch uſe and need at this time; on theſe conſiderations, I ſay, I confeſſed myſelf much biaſſed to the laying aſide the tranſlating thoſe French prefaces in Iriſh; at leaſt for the preſent. And if on farther conſideration it ſhould be after found notwithſtanding adviſeable to take notice of them, that they be prefixed to the old teſtament, or to the common-prayer-book in Iriſh, when publiſhed.

As to the printing of the old teſtament in Iriſh; that being a work of charge and time, toward which, not ſo much as a propoſal is yet prepared, but in its time expected; I ſhould offer, that this alſo be reſpited for a while; and that the common-prayer-book in Iriſh, formerly printed, and now out of preſs, ſhould be firſt reprinted: which, with the new teſtament, ſhortly expected, may well forward that your pious work, in which you have ſo merited of this church and nation.

In all which, I humbly ſubmit to better judgments and to yours in a ſpecial manner; deſiring to hear from you, if you pleaſe; that in my return to Mr. *Boyle*, the whole may be repreſented to him, and alſo left to his ordering.

Thus,

THUS, desiring God to bless you in that your great charge and work, I rest,

Reverend Sir,

your very affectionate

and humble servant,

Henry Midensis.

VI.

Bishop of Meath *to Mr.* Boyle.

Dublin, September 3, 1681.

Honourable Sir,

THIS seems a tardy return to yours, two months past; but the inclosed shews me not so forgetful:

IN which you find my communicating yours to my good friend Dr. *Marsh*, the worthy provost of the college here; whose hand in furthering that by you begun, for the good of the Irish, in their own language, hath been happy, and every day more successful.

HIS thoughts, with mine, you have, in the inclosed, concerning the Jansenists prefaces to the new testament in French, designed for ours also in Irish; to which I refer, and submit all, howsoever, to what you shall judge of it. Dr. *Sall* speaks of preparing a preface, he hopes, fit for our purpose; which, when perused and allowed by you, shall be after translated into Irish.

SOME of your copies of the new testament reprinted would be very acceptable here, where they are wanting, and necessary. These, if you please, may be consigned to the provost for public use.

I AM on the way for procuring one of the Irish common-prayer-books; and shall find the means

for conveying it to you. I ſuppoſe your preſs will be fitter for reprinting that, than any here, ſtrangers to that character and language. But whether there, or here, and how to be carried on, I may after underſtand.

I AM ſurpriſed, in miſſing in that our common-prayer-book in Iriſh the vulgar tranſlation of the pſalms; which until now I never obſerved; it having been a ſtrange omiſſion, that the pſalms, of ſuch daily uſe in reading, ſhould have been neglected. But, I ſuppoſe, that what of the pſalms we have in the body of the old teſtament in the Iriſh MS. (which I have) may ſupply that want, although it be not according to the vulgar, and may be added in the common-prayer-book as the other.

I PERCEIVE by your laſt, that what of yours miſcarried in ſending, was the project concerning your Welſh bible, intended as leading to ours of the old teſtament in Iriſh, when it ſhould be conſidered. But that ſo loſt may be (I doubt not) retrieved ſeaſonably, before we can be ready for the other. For I underſtand by Dr. *Sall*, and others verſed in the Iriſh, that it may be neceſſary, that the Iriſh verſion of the old teſtament in MS. ſhould be firſt reviſed, before it be expoſed to public view. This will take up time; and will require charge alſo, in procuring aſſiſtance, and labours in that kind of ſuch as are of approved abilities for it: among whom I wiſh, if it might be, that Mr. *Reily* might be one. Of this you ſhall hear farther hereafter.

WHAT you had in my former concerning the late comet, was of Dr. *Marſh*, our provoſt's obſervations, which being by him ſent me, I preſented them to yourſelf, who are generally known to be in the recondits of nature, above others, critical.

You

You find alſo ſomething of his in Dr. *Plott*'s Natural Hiſtory of *Oxfordſhire*, pag. 289. — concerning muſic; to which I refer. This I mention, that the genius of that worthy perſon may be better known, his natural modeſty giving him otherwiſe to lie hidden.

I SHALL no farther interrupt your more ſerious thoughts at preſent, but wiſhing you all happineſs, and the reward of your good to all, reſt,

Honourable Sir,

your very affectionate

and humble ſervant,

Henry Midenſis.

VII.

Mr. Boyle *to Dr.* Henry Jones, *biſhop of* Meath.

My Lord,

I MUST begin this letter with my humble thanks for the honour of your lordſhip's of the 3d of this month, which, together with the two incloſed papers, came the ſlowlier to my hands, becauſe they found me not in *London*. As to the verſion of the Janſeniſts preface, I muſt ingenuouſly confeſs to your lordſhip, that the book itſelf, to which it is prefixed, having been got from me, by a perſon of quality, before I had read more than here and there ſome paſſages of the preface, I did, in recommending it, rely leſs upon my own judgment, than that of a very learned and famous divine, and ſome other perſons of eminent parts. And though I was aware of ſome of the objections, that I find in the two judicious papers, and had with Mr. *Reily* taken order to have them obviated in

Oxon: 1677. Chap: VIII.

in his tranſlation into Iriſh, yet I meet with ſome weighty ones, that I did not (and indeed could not) well know of; and therefore, as your lordſhip may remember, that in propoſing this preface, I was ready to ſubmit to the better judgment of your lordſhip and your learned friends upon the place, ſo now, upon freſh accounts, I fully refer to you the prefixing what preface ſhall be thought moſt ſuitable to the deſign of the publication, and the particular circumſtances of it and the verſion: in which work I am very glad your lordſhip will have ſo good an aſſiſtant as Dr. *Sall*, who is ſo able a man, and ſo well acquainted with the humour and opinions and prejudices of his countrymen, that I doubt not but he will ſkilfully accommodate his diſcourſe to them. Only, perhaps, it may be thought fit, to make uſe of ſome paſſages of the Janſeniſts preface, not as it is a preface, but as it contains the public avowed ſenſe, and eloquently exhibits the reaſons of famous and eminent divines of the Roman church, for the tranſlating and ſtudying the new teſtament in vulgar tongues. I am, as well as your lordſhip, much ſurpriſed, that the reading pſalms ſhould be omitted in the Iriſh common-prayer-book; but perhaps it will not be for the worſe, ſince it will be neceſſary to ſupply that omiſſion out of your Iriſh old teſtament, in which it is hard, if the pſalms be not better tranſlated out of the original, than if they had been out of the vulgate. I perceive, that, God permitting, there will be time to retrieve the papers, that I ſent your lordſhip, and that miſcarried, about the method uſed in getting ſubſcriptions for the Welſh bible; but by reaſon of the abſence of the manager of that impreſſion, I cannot yet get copies of his papers. But I hope your lordſhip, and the other well wiſhers to the printing

printing of the old teſtament, will not ſtay long for the reviſal of the tranſlation. For though it ſeems very fit, that one ſhould be heedfully made, yet I ſee no neceſſity, that the work ſhould be thereby retarded. For ſome good progreſs may be made in the review, before it will be poſſible to get the firſt ſheet printed; and then it cannot be very difficult for the reviſers to correct at leaſt as faſt as I fear the printer will work off. Whether the edition will be fitter to be made here (as your lordſhip ſeems inclined to think) or at *Dublin*, I wholly leave to be determined by your lordſhip and your friend: and whether here or there, the letters I cauſed to be caſt will be equally at your lordſhip's ſervice. I lately expoſtulated with Mr. *Reily* about the ſhameful tardineſs of the edition of the new teſtament; for which he much excuſes himſelf, laying the whole blame upon the printer, and promiſing, that if the old teſtament be to be wrought off here, he will tie him up very ſtrictly to diſpatch. All which, notwithſtanding I know not, as I was lately intimating, whether *London* or *Dublin* be the fitteſt to be pitched upon for this work; eſpecially ſince here, in caſe Mr. *Reily* ſhould die, or fall ſick, the whole work muſt be at a ſtand, there being none (that I can hear of) in this place fit to correct the preſs. Thoſe ingenious papers about the comet were communicated to a perſon, that I hope will make good uſe of them; and I am glad to know, that I was not miſtaken in thinking they came from Dr. *Marſh*, that I may upon the new ground rejoice, that the college of *Dublin* is happy in ſo learned and worthy a provoſt. Before the receipt of your laſt packet, I was altogether of your lordſhip's mind, that it is not fit all the exemplars of the new teſtament ſhould ſtay for the preface (whatever that be) and accord-

accordingly, I cauſed copies to be bound the ordinary way, beſides much more handſomly bound, for the preſent uſe of the members of the college, and ſome other perſons, that your lordſhip or Dr. *Marſh* ſhall think fit to ſend any to. And becauſe to have them tranſported by long ſea (though I were adviſed to that, as much the cheapeſt way) would certainly take up time, and might prove hazardous, I reſolved to diſpatch them by land to *Cheſter*, to the poſt-maſter of which place I got them particularly recommended by Mr. *Dowlin*, poſt-maſter of *Dublin*; where, I hope, they will ſpeedily come ſafe, and be delivered to your lordſhip, whoſe long life, health, and ſucceſs in this good work, is heartily prayed for by,

My Lord,

your lordſhip's moſt faithful

and moſt humble ſervant.

VIII.

Biſhop of Meath *to Mr.* Boyle.

Dublin, Novemb. 5, 1681.

Honourable Sir,

YOUR laſt of the 27th of September came to hand as I was then entring on a journey into the country, where my preſence was neceſſary, which ſo far occaſions this delay in this return to yours.

THEREIN you mentioned the ſending hither Iriſh teſtaments, ſome (about 50) bound, and others (about 350 in ſheets) then on their way hither from *London*.

THERE-

THEREUPON I attended our principal officers at the Cuſtom-houſe here, deſiring, when thoſe books arrived, they might be ſafely depoſited under their care, until my return out of the country; the provoſt alſo of the college being then for ſome time in the county of *Kerry*, inſpecting college affairs there, and thereabout.

ON his and my return hither, we found thoſe books here arrived, and laid up accordingly for us about ſix weeks, which, and the bringing them from the Cuſtom-houſe to the college, (where they are laid) was with ſome, but little charge.

IN that your letter mentioned, was alſo intimated ſomething farther expected from you for ordering that parcel of thoſe books, which were not bound; of which nothing hath hitherto come to my hand here, that I can underſtand. Therefore are they laid by, not delivered to any book-binder, until further orders concerning them appear. Theſe are depoſited in the college under the provoſt's care, which I conceived the place proper for their ſafe keeping, and after diſperſing them on occaſion.

As to thoſe books ſent over bound, 4o, according to your directions, are left with the provoſt for the preſent uſe of the college.

SOME alſo of the books of the better ſort of binding were preſented as from yourſelf to thoſe great perſons in yours named. Only I preſumed to preſent one of them to the lord lieutenant the duke of *Ormonde*, as from yourſelf (although not mentioned) and found it well accepted by his lordſhip. I conceived this neceſſary, for having his lordſhip's countenance in that great buſineſs when occaſion ſhould require, there being many adverſaries.

THAT which gives greateſt hopes of ſucceſs in this, is our good provoſt's care and zeal in training

up the preſent youth in the college in reading the Iriſh, which by the books from you now in their hands is much forwarded.

THESE may be a ſeed plot for the church; the harveſt is great, and labourers few; therefore is the Lord of the harveſt to be earneſtly deſired to prepare and ſend forth more labourers for the great harveſt of ſouls, which we hope for.

WE have received your tranſlation of the Janſeniſts prefaces, and you will ſhortly hear from Dr. *Sall* of his preface alſo. I deſired him firſt to ſend you a copy of that in Engliſh for your approbation, before he entred on his tranſlating it into Iriſh.

I SHALL forthwith put into his hand the Iriſh old teſtament in manuſcript to be by him reviſed. You will alſo have from him the Iriſh common-prayer-book for farther conſideration.

As for the Welſh model for ſubſcriptions, which may direct in our proceeding and forwarding this great work, in that we depend on your procuring it, as you ſhall find your opportunities for it. God bleſs you in all. I reſt,

Honoured Sir,

your moſt humble

and real ſervant,

Henry Midenſis.

I CONTINUE to mind you of what I have ſome time ſince written concerning my kinſwoman Mrs. *Loane*, tenant to the earl of *Burlington*, for renewing her leaſe now expiring. I am juſt now ſolicited in this, which occaſions your trouble in it.

Dr.

IX.

Dr. Anthony Dopping, *biſhop of* Meath, *to Mr.* Boyle.

Aug. 3, 1682.

Honoured Sir,

I MUST needs acknowledge it as a great omiſſion in myſelf, that I have ſo long delayed an anſwer to your kind and obliging letter, which I had the honour to receive a conſiderable time ſince: and as I deſire not to make any apology for my neglect, ſo I hope you will be inclined to pardon it, upon my promiſe of offending no more in this nature. As for the deſign on foot about the Iriſh old teſtament, it goes on, though by ſlow and leiſurely ſteps, but I doubt not within a ſmall time to procure (from ſome well affected perſons to the work) ſuch ſubſcriptions, as may add little more of life and briſkneſs to the undertaking; and I hope we may effect this without putting you to the trouble of ſending the formularies of ſubſcriptions for the Welſh bible: but I preſume our ſubſcribers here will expect a book, when it is printed; and if ſo, I am afraid, that the printed copies deſigned may but anſwer the number of ſubſcriptions, and ſo the publickneſs of the work be prejudiced by it. How to obviate this I leave it to your prudence and judgment to conſider and contrive an expedient; to whom, as the glory of the undertaking is entirely due, ſo I ſhould think myſelf very criminous, if you were not made acquainted with all the hazards that fœtus muſt run through, which owes its birth to your care and charity. Thus with my humble reſpects I remain,

Honoured Sir,

your moſt humble and obedient ſervant,

Anth. Midenſis.

Biſhop

X.

Biſhop of Meath *to* * * *

December 14, 1685.

Reverend Sir,

YOUR letter, which I received yeſterday, would have been very obſcure to me, if you had not ſent me Mr. *Boyle*'s incloſed in it, as a key to open the ſenſe of ſome things in it. As to the title page, mentioned in his letter, I can ſay nothing to it, being a ſtranger to the tranſactions between him and you concerning it: as to the preface, if by it be meant that, which I ſent you, I am much of Mr. *Boyle*'s opinion, that it is improper to have it in Engliſh, and that I intended it to be tranſlated into Iriſh, had not your letter to me imported, that the preſs ſtayed for it. But ſince it is now out of my hands, and Mr. *Reily* hath obtained a deſerved character for his knowledge in the language of his own country, I know of no perſon more fit to be employed in it than himſelf.

As for an hiſtorical account of the verſion, I dare not undertake to tell the world, that it is impartially done from the original, having no knowledge of the language of my own country: all that I can add concerning it, is only this, (which, if Mr. *Boyle* thinks fit, may be farther enlarged in its exterior dreſs, but very little, as to the ſubſtance) that in the convocation held at *Dublin* 1634, there were no ſmall debates about the verſion of the bible and the liturgy of the church into the Iriſh tongue, for the benefit and inſtruction of the natives; Dr. *Bedell*, biſhop of *Kilmore*, being for the affirmative, and Dr. *Bramhall*, biſhop of *Derry*,

Derry, oppoſing it. The reaſons of the former were drawn from the principles of theology, and the good of ſouls; of the latter, from politicks and maxims of ſtate, and eſpecially from an act of parliament, paſſed in this kingdom in the reign of King *Henry* VIII. for obliging the natives to learn the Engliſh tongue. However, the reaſons of biſhop *Bedell* were thought ſo ſatisfactory (eſpecially being countenanced by the authority of primate *Uſher*) that the convocation thought fit to paſs two canons concerning it; the one, that the miniſter ſhould read the liturgy in Iriſh, where moſt of the people were ſo, can. 8. the other for the pariſh clerk to accompany the miniſter in reading his part of the ſervice in Iriſh, can. 66.

UPON theſe foundations the pious biſhop *Bedell* reſolved to make farther ſuperſtructures; and accordingly ſet himſelf to the verſion of the old teſtament into the Iriſh tongue (for the new had been done before at the expences of Sir *William Uſher*, clerk of the council of *Ireland*, and by the care of Dr. *Daniel*, who was after made archbiſhop of *Tuam* in *Ireland*) taking to his aſſiſtance, one Mr. *King* and Mr. *Dennis Sheridan*, both Iriſhmen and clergymen, and excellently ſkilled in the language of their own country, whoſe office it was, to tranſlate the then Engliſh verſion into Iriſh, whilſt the biſhop (who was excellently learned in the Hebrew and the Iriſh languages) reviſed the whole work, comparing it with the original, and either expunged, or added, as he ſaw it nearer or more remote from the original. The work, thus happily finiſhed, was left, by biſhop *Bedell*, with Mr. *Sheridan*, the tranſlator, (who ſurvived him) and was by him delivered to the late biſhop of *Meath*, Dr. *Henry Jones*, by him communicated to Dr. *Andrew Sall*, from whom I received it be-

fore his death, and gave it to your predeceſſor, Dr. *Marſh*; and what fate it hath met with ſince, he and others, whoſe hands it hath paſſed, can beſt relate.

Some part of this narrative I have read in the life of biſhop *Bedell*, lately publiſhed by one *Clogy*, who is ſomewhere beneficed in *England* (if he be alive) and married the ſaid biſhop's daughter, and may be more particular, if conſulted. If I have miſtaken any thing (as perhaps I may, as to the name of *King*, for I have not the book by me) that book will rectify it: the remainder, relating to Mr. *Sheridan*, you may receive a more ample account of from the biſhop of *Kilmore*, who is his ſon. I have ſent you Mr. *Boyle*'s letter, conceiving, that it may import you more than me. I ſuppoſe the title page ought to be in Iriſh characters firſt, and then in Engliſh; with this inſcription in both: *The Books of the Old Teſtament tranſlated into Iriſh, by the Care and Diligence of Dr.* William Bedell, *late Biſhop of* Kilmore *in* Ireland, *and now printed for the public good of that Nation.* London.

If Mr. *Boyle*'s modeſty would permit, I judge it neceſſary, that at the end of the preface, ſome thing be inſerted concerning his bounty in the printing it at his own charges, that the nation may know their obligation to ſo worthy a benefactor. I remain,

SIR,

Your moſt humble ſervant,

Anthony Midenſis.

PREFACE

XI.

PREFACE to the IRISH NEW TESTAMENT.

To the Christian people of *Ireland.*

HERE you have, dear countrymen, the new teſtament of our bleſſed Lord and Saviour Jeſus Chriſt preſented to you, in your country garment, tranſlated unto the Iriſh tongue; and therein the moſt noble, the moſt important, and, to well diſpoſed minds, the moſt pleaſant reading, that poſſibly can be offered to their view. I ſay, the moſt noble, whether you conſider the Author of it, being the very wiſdom of God, his divine Son Jeſus, and his holy diſciples taught by himſelf, and by the Holy Ghoſt guiding their pens; whether you look upon the ſubject of this ſacred book, which is the knowledge of divine myſteries, and of the way leading to your everlaſting happineſs; in which conſideration you find alſo the ſupreme importance of this ſacred reading, as guiding you to the kingdom of heaven. And what availeth you to purchaſe all that the world can afford, if you ſhould fall ſhort of that glorious enjoyment? And if God hath commanded his people to read continually the law, which he hath given them, and to meditate therein day and night; and if ſocieties, aſpiring to ſome peculiar degree of perfection, do believe they are obliged to read always the rules they have taken to that end; we, that are by God's mercy *called unto the fellowſhip of his Son Jeſus Chriſt our Lord*[a]; how

[a] 1 Corin. i. 9.

ſhall not we think it our moſt neceſſary duty to read, and continually to meditate in the law he has left us as a teſtament and pledge of his inheritance?

FINALLY, the unſpeakable pleaſure of this ſacred reading was well experienced and frequently atteſted by thoſe godly ſouls, who happily have exerciſed themſelves in it. Them you may conceive ſpeaking to the Author of this book, in Pſalm cxviii. 103. *How ſweet are thy words unto my taſte! yea ſweeter than honey to my mouth*; and in that of *Canticles* iii. *Thy ſpeech is comely.* St. *Clement Martyr* declares [b], that whatſoever may be deſired for harmleſs pleaſure or profit in profane books, the ſame may be found far more advantageouſly in the ſacred ſcripture, of which he maketh himſelf a large and fair induction, running upon the contents of ſeveral books of the Holy Bible. And St. *Auguſtin* ſays, that *as the ſtore of gold, ſilver and garments, which the Iſraelites brought out of Egypt, was but mean, in compariſon of what they found after in Jeruſalem, as may appear by the wealth of King Solomon: ſo any purchaſe of knowledge got in the books of heathens, is nothing, being compared to the ſcience of ſacred ſcripture.*

AND this being true enough, ſpeaking of ſcripture in general, is ſingularly evidenced in this divine volume of the new teſtament of our Lord and Saviour Jeſus. For if you are for the pleaſure of hiſtory, relating wonderful ſucceſſes, other records may repreſent to you men overcoming other men, cities, or wild beaſts: but here you ſhall find a divine man ſubduing the world without worldly arms; the ſea and winds, and all the elements, even the devils, obeying his commands; death it-

[b] Clement. lib. 1. conſtitut. apoſtolic. c. 7. Aug. lib. 2. de doctrin. Chriſtian. c. 41.

ſelf,

ſelf, which trampleth all human power, overcome by him, raiſing others and himſelf from under the power of it, and mounting with his own proper power over the clouds and ſkies unto the higheſt heaven. In the Acts of the Apoſtles you ſhall meet with the like prodigies wrought by his diſciples, illiterate ſimple men triumphing over the ſwelling ſcience of the ſages of this world, kingdoms and nations obeying their word. If you deſire moral inſtructions, for ruling your life and ſteering the courſe of it to everlaſting reſt, you have in the ſermons and precepts of our Saviour ſpread over the Goſpel, and in the epiſtles of his bleſſed apoſtles, the very treaſure of knowledge given to you by God, for that purpoſe, and the moſt excellent ſyſtem of ethics and theology, that ever was ſeen in the world, all virtues heretofore known to men there commended and exalted, and others more ſublime, never before practiſed in the world, taught by our Saviour and his diſciples in their precepts, and moſt powerfully by their examples. St. *Chryſoſtom*, gloſſing upon the admirable meekneſs of *David*, ſparing his inveterate enemy in the cave of *Engeddi*, 1 *Sam.* xxiv. exhorteth all men to print in their hearts, that paſſage [d]; *for it is impoſſible*, ſaith he, *that a mind converſant in ſuch kind of hiſtories ſhould be overcome by paſſions.* And is it poſſible, that a man, reading in the Goſpel and in the Acts of the Apoſtles, ſo many prodigious examples of humility, meekneſs, and patience, practiſed by our Saviour and his bleſſed diſciples, ſhould be overcome by pride, vanity, or impatience? When he finds the Son of God chearfully bearing affronts offered to him by vile men; when he ſees the holy apoſtles rejoicing, that *they were counted worthy to ſuffer ſhame for his name*, Acts v.

[d] Chryſoſt. homil. 1. de David. & Saul.

41. ſhall he be ſtartled at every ſmall injury received?

And laſtly, if you are for a ſublime extatic contemplation of heavenly myſteries, you have in the venerable prophetic deepneſs of the Apocalyps ſparkles of divine light, which in pious and humble ſouls do work a profound reſpect of God's infinite grandeur and majeſty.

If any ſhould ſay, that this precious treaſure ſhould be reſerved for the learned in the original or ſchool languages, and not expoſed to popular eyes in the vulgar ones; whatever be the weight of this conſideration, it has been over-ruled already by all Chriſtian nations, *Italy*, *Spain*, *France*, *Germany*, *England*, and all other kingdoms and countries of the Chriſtian world, do enjoy the glorious light of divine ſcripture in their native idioms. The learned doctors in divinity of the univerſity of *Paris* have reprinted of late the new teſtament in the French language, following therein the examples of the doctors of *Louvain* in the ſame faculty, who had ſet forth the whole bible in the ſame language, and bemoaning in the preface of their edition the ſad effects of the common neglect of reading the holy ſcripture in theſe latter times of Chriſtianity, far otherwiſe than it was in the more holy primitive ages of it. All the writings of the holy and learned fathers of the church are repleniſhed with marks of their reſpect to the word of God delivered to us in the holy ſcripture, exhorting all men to the reading and knowledge of it. The Goſpel, ſay they, is the mouth of Chriſt: he ſits in heaven, but ſpeaks continually on earth. How then dares that man call himſelf ſervant of Chriſt, who cares not to know what he ordains him to do? Or how can he obey him, if he ſlights to hear him? The precepts of the Goſpel,

ſpel, ſays St. *Cyprian*, are the foundation of our hope, and the nouriſhment of our heart. It is in this reading we find light to guide us, ſtrength to uphold us, and remedy to heal us. This made *Cæſarius*, biſhop of *Arles*, to ſay, that thoſe very men, who are not able to read, may not be excuſed from attaining to a competent knowledge of the ſoul-healing doctrine of the Goſpel; for if even ſuch men do find means to learn idle and leud ſongs and romances, with more reaſon they ſhould apply themſelves to learn the heavenly doctrine of ſcripture. And that they may the better do it, the foreſaid learned doctors of *Paris* and *Louvain*, as alſo other pious and learned men in all nations of Chriſtendom, have taken care to tranſlate the holy ſcripture into the vulgar language of their countries, that the divine doctrine of it may more eaſily come to the knowledge of all ſorts of men. And that *Ireland*, ſometimes inferior to few of the nations in piety and learning, might not be deprived of the like happineſs, has been the pious zeal and care of worthy patriots, whoſe names ought to be with praiſe continued in the memory of poſterity. Such we find to have been *John Kearney*, ſometimes treaſurer of St. *Patrick*'s church in *Dublin*; *Nicholas Wailſh*, biſhop of *Oſſory*; *Nehemiah Odonelan* and *William Odonel*, both archbiſhops of *Tuam*, by the help of others, ſkilful in the Iriſh tongue, the province of *Conaught*, and Sir *William Uſher*, clerk of the council, bearing the charge of the firſt edition of the new teſtament in Iriſh.

AND now again, that edition being worn out in time, and few copies of it to be found, God has raiſed up the generous ſpirit of *Robert Boyle*, Eſq; ſon to the right honourable *Richard*, earl of *Corke*, lord high treaſurer of *Ireland*, renowned for his piety and learning, who hath cauſed the ſame

book of the new teſtament to be reprinted, at his own proper coſt. And as well for that purpoſe, as for printing the old teſtament, and what other pious books ſhall be thought convenient to be publiſhed in the Iriſh tongue, has cauſed a new ſet of fair Iriſh characters to be caſt, in *London*, by a ſkilful artiſan, and an able printer to be inſtructed in the way of printing this language; and having appointed five hundred copies of this new edition to be beſtowed on ſuch, as ſhall be thought to make the beſt uſe of them, has extended his charitable zeal towards the printing of the old teſtament in Iriſh, giving both the uſe of his characters for that purpoſe, and fifty pounds of his money for a beginning to ſubſcriptions for the publiſhing of it. We cannot but hope, that God will excite the ſpirits of other pious men to follow the heroic example of this noble man, in furthering this holy work, for the good and comfort of many poor ſouls, pitifully deſolate and blinded, for want of the heavenly light of the word of God to ſhine among them.

If any other ſhould further ſay, that holy ſcripture, tranſlated unto common language, ſhould not be generally permitted to all men's reading, becauſe ſome, by the ill uſe, and wrong underſtanding of it, have raiſed ſchiſms and many diſturbances; it may be anſwered, firſt, that this argument proving too much proves nothing by the ordinary rules of arguing. It proves too much, becauſe churchmen and the more learned ſhould be prohibited the reading of ſcripture more carefully upon this account, whereas *Arius*, *Pelagius*, *Neſtorius*, and other prime hereſiarchs, were churchmen, and of eminent learning. Secondly, that becauſe children do cut their fingers with knives, and wicked men do murder others with ſwords, knives

and ſwords muſt be taken from all upon the like account. The remedy therefore is to be, not to take away knives and ſwords, and leſs the ſcripture, but the evil uſe of them. To avoid this, and find the ineſtimable treaſure encloſed in ſacred ſcripture, let piety, humility, and diſcretion guiding both, be their companions in reading it. Let their piety appear in ſeeking ſincerely the will of God, and the way to him in that holy reading. Let their humility ſhine in not relying too much upon their own judgment in the expoſition of ſcripture, where it is obſcure, but praying to God, and ſeeking the help of the moſt warrantable teachers for the right underſtanding of it; in the choice of which teachers, their diſcretion is to be practiſed, relying more upon the moſt ancient, moſt holy, and moſt generally approved in the Chriſtian church.

AND if, after uſing their beſt endeavour to find out the right underſtanding of ſcripture, ſome places of it ſhould continue obſcure to you, take from the learned, humble and holy doctor, St. *Auguſtin*[e], this excellent leſſon, for judging of thoſe ſacred books: *Where I underſtand them*, ſays he, *not only nothing can be more wiſe, but alſo nothing ſeems to me more well ſpoken: and where I do not underſtand them, their eloquence is not ſo apparent to me; but, even then, I do not doubt, but it is ſuch, as where I do underſtand them.* God were not God, if to be comprehended by human wit. If any of his words ſeem to you not ſo agreeable to reaſon, make ſure account the fault lies in your weak underſtanding; wait patiently, pray and read again, and hope in God's mercy, that he will open your eyes to a right underſtanding; and the more often you read, the more light you ſhall daily receive. Mark what

[e] Aug. lib. ult. de doct. Chr. c. 6.

the

the ſame great doctor St. *Auguſtin* declareth of his own experience[f]. *I do publicly avouch*, ſays he, *the depth of Chriſtian ſcriptures to be ſuch, that I would daily have more and more to learn in them; though from my childhood to decrepit old age, I ſhould with full leiſure, moſt eager ſtudy, and greater wit endeavour to learn them.* But the ſame holy and learned doctor giveth you for comfort, what is certainly true, that in what is plain of ſcripture you have all that is neceſſary for your inſtruction, both in belief and in a good life, which made St. *Paul* writing to *Timothy* tell him, that *the holy ſcriptures, which from a child he had known, were able to make him wiſe unto ſalvation*[g]. Whereof he giveth the reaſon, adding immediately, that *all ſcripture is given by inſpiration of God, and is profitable for doctrine, for reproof, for correction, for inſtruction in righteouſneſs; that the man of God may be perfect, thoroughly furniſhed unto all good works.*

Now therefore the excellency of this holy book being ſo incomparable, and ſo vaſt the importance of it, it is the expectation of the pious and learned men, who have laboured in publiſhing it, and their earneſt requeſt even for Chriſt Jeſus his ſake, that all good Chriſtians capable to make uſe of it, ſhall in their reſpective ſtations reverently frequent the reading of it, for the benefit of their own ſouls, and of others about them, or under their charge; and more eſpecially, that all godly churchmen, who have the cure of ſouls, may read, or cauſe it to be read to their congregations, whereto underſtanders of the Iriſh tongue do reſort, or upon this encouragement may reſort more; conſidering, that no preaching is ſo effective to work upon ſouls, as the very *word* of *God*, which, as St. *Paul* ſays, *is quick and powerful, and ſharper than*

[f] Aug. epiſt. 3. [g] 2 Tim. iii. 15, 16, 17.

any

any two edged ſword[h]. For the ſame reaſon, pious fathers of families ſhould cauſe it to be read on fit ſeaſons to their houſhold, inuring them to a deſerved love of this ſacred reading, in lieu of romances, and other idle or noiſom divertiſements. Foreigners alſo, who deſigning to continue their habitation in *Ireland*, will, by the rules of common prudence, deſire to purchaſe a knowledge of the language, may attain it by reading this book, comparing each chapter of it with another of the ſame contents in the language they underſtand; for which purpoſe ſome ſhort rules have been already, and more ſhall be publiſhed, for the right pronouncing and reading of the Iriſh tongue.

FINALLY, ſtudents in ſchools and univerſities, who deſign to live by the cure of ſouls in *Ireland*, ſhall upon a ſerious conſideration find it their preciſe duty to procure ſuch knowledge in the language of the natives, as may enable them to help and inſtruct the ſouls committed to their charge, and of which they are to give account to God; for notwithſtanding all the wiſe ſtatutes and endeavours uſed to bring this whole nation to a knowledge of the Engliſh tongue, experience ſhews it could not be effected, too many being unable to give ſuch teaching to their children, or to get it for themſelves; and it is apparent, that in *Ireland* there are many pariſhes, baronies, and whole counties, in which the far greater number of the common people do underſtand no other language but the Iriſh. This being ſo, how can it be preſumed of any godly paſtor of ſouls in ſuch places, that he ſhall not procure the ſpiritual welfare of thoſe men, by the ſweat of whoſe brows he hath his bread, enabling himſelf to preach, read to, or converſe with them in a language they can underſtand,

[h] Heb. iv. 22.

that

that being the way to gain their good will, and thereby to win their ſouls to God? For very true and experienced is what *Ariſtotle* ſaid, *plurimas amicitias taciturnitas ſola diſſolvit*, that want of communication breeds want of love and union. And to gain their affection is the way to benefit their ſouls, and cure them of the moſt deplorable blindneſs they are in, ſitting long time *in darkneſs and in the ſhadow of death*, for want of ſetting before them the heavenly light of the word of God, which his loving providence hath given as *a lanthorn to our feet*[i], in this our pilgrimage towards our deſired home of heavenly glory. And now the Lord and giver of it, our dear Saviour Jeſus, who hath inſpired the thoughts of publiſhing this ſacred book for the good of ſouls, be graciouſly pleaſed to grant all others concerned to make due uſe of it towards the glory of God, and the ſpiritual welfare both of others and their own. Amen.

NUMBER IV.

Letters and papers relating to the diſtributing of the Iriſh bibles in the *Highlands* of *Scotland*, at the expence of Mr. *Boyle*. *Life*, p. 294.

I.

Mr. Kirkwood's *letter to Dr.* Wotton, *containing a general account of Mr.* Boyle's *concern in the edition of thoſe bibles.*

Reverend Sir, June 22, 1702.

I AM glad you are going to publiſh the life of the excellent Mr. *Boyle*, who was ſo great an

[i] Pſal. cxix. 104.

ornament

ornament to his country and to our holy religion. I reckon it one of the bleſſings of my life, to have been acquainted with ſo extraordinary a perſon, whoſe company I found always very delightful and edifying. It was ſoon after our acquaintance was begun, that I had the opportunity of talking with him of the ſad ſtate of religion in the *Highlands* of *Scotland*, where they had neither bibles nor catechiſm in their own language. This gave him an occaſion to tell me of his having cauſed five hundred bibles in Iriſh, in a quarto volume, in the Iriſh character, to be printed for the uſe of thoſe in *Ireland*, who underſtood not the Engliſh. He then offered a few of thoſe bibles to be ſent into *Scotland*, to ſee what reception they might meet with there: a dozen of them was firſt ſent, and afterwards two hundred; which made one for each pariſh. In ſuch places, where theſe books were diſtributed, they had a very good effect, as you may perceive more fully by the papers relating to that affair, which I ſend you. After ſome time, I heard from ſome miniſters in thoſe parts, that it was the earneſt deſire of many, who wiſhed well to our religion, to have a new impreſſion of the bible in the Latin character, in a ſmall volume, for the uſe of ſuch perſons in the *Highland* pariſhes, as had been taught to read Engliſh, though they did not underſtand it, and for the advantage of ſuch children, as ſhould be ſent to ſchool, eſpecially thoſe of the poorer ſort, who could not purchaſe books for themſelves. To anſwer the pious deſires of ſuch perſons, endeavours were uſed in *Scotland* to procure another impreſſion; but in this attempt we met not with ſucceſs. The firſt encouragement, that was given me to go on with it in this kingdom, was by the worthy Mr. *Boyle*, who told me, he would ſubſcribe for printing one hundred

hundred bibles. This example diſpoſed others, whom I acquainted with the deſign, to ſubſcribe very freely and largely. Moſt of the ſubſcriptions you will ſee in the printed paper I ſend you relating to that affair. I need not mention other particulars, only in ſhort, after ſome few years, this work was happily finiſhed, the books were printed, tranſmitted into *Scotland*, and long ago the greateſt part of them was diſperſed in the ſeveral counties of the *Highlands*. We have had many accounts of the happy effects, which have attended our endeavours, in behalf of thoſe poor people, who have been ſo long neglected and ſuffered to remain in a ſtate of ignorance and barbarity. By the printed paper you will likewiſe ſee, that there were ſix thouſand catechiſms and prayer-books in Iriſh printed at the only charge of Mr. *Boyle*, for the uſe of the Highlanders, which were accordingly ſent down into *Scotland*; many of which have been likewiſe diſperſed among the Highlanders. The catechiſm and prayers were compoſed by Mr. *Charteris*, and were tranſlated into Iriſh by Sir *Hugh Campbell*, of *Caddell*, and afterwards reviſed and corrected by Mr. *Kirk*. There were added to the catechiſm ſome paſſages of ſcripture, containing the principal heads of the Chriſtian religion, to ſerve as a ſhort and plain tract of devotion and Chriſtian morality. It was this catechiſm and prayers, that are mentioned in the biſhop of *Roſs*'s letter. As for the papers I ſend you, which have ſome relation to that great man, I leave it to you to make uſe of them, or any part of them, in ſuch ſort, as you judge may beſt ſerve your deſign. When you have done with them, be pleaſed to return them to me again, to be left for me at Mr. *Milbourn*'s a watchmaker at the *Blue Boar* in the *Old Baily*, near *Ludgate*, *London*. As for the

letter from Mr. *Charteris*, I ſend it you, that you may ſee the high opinion, that pious and primitive perſon had of the famous Mr. *Boyle*. As for Mr. *Boyle*'s own letter, the chief reaſon why I ſend it, is upon the account of ſome few ſeaſonable expreſſions in it about education, which may be very well improved in ſome part or other of his life. As for the letter from Mr. *Kirk*, a Highland miniſter, who was corrector afterward of the preſs, when the Iriſh bible was reprinted, perhaps it will furniſh you with ſome hints not unuſeful to your deſign. I need ſay no more as to this matter. I heartily wiſh you may have good ſucceſs in what you are about, that you may be able to ſet forth ſo great a pattern and example in ſuch a light, as may move others to have a higher regard for ſolid piety, and uſeful learning. Before I conclude this letter, I muſt acquaint you with another deſign, which has been ſet on foot, in behalf of the miniſters, ſchool-maſters and probationers, in the *Highlands*. The reaſons of this deſign you will ſee in the printed paper I ſend you. They, who are now in the government there, have ſo far eſpouſed it, as to recommend it to the ſeveral preſbyteries to promote it. I know your good affection to religion and learning will diſpoſe you to encourage a work of this tendency, which is likely to prove of very great uſe and advantage. Your neighbour, Mr. *Frank*, can acquaint you with ſome farther particulars relating to this affair. I am,

Reverend Sir,

Your affectionate brother,

and humble ſervant,

JA. KIRKWOOD.

An

II.

An account of the deſign of printing 3000 bibles in Iriſh, for the uſe of the Highlanders.

THE inhabitants of the *Highlands* of *Scotland* have never had the bible in their own language, which is the Iriſh. Some endeavours have formerly been uſed in *Scotland*, to have it printed in that language, but hitherto they have proved unſucceſsful. Of late the honourable and pious and learned Mr. *Boyle* hath, at great charge, cauſed to be printed 500 bibles in Iriſh, which were deſigned for *Ireland*; and accordingly moſt part of them, eſpecially the new teſtament, were by him ſent thither. Of the books of the old teſtament which remained, he ſent above two hundred into *Scotland*, which made one book for each pariſh in the *Highlands*, there being ſo many pariſhes in thoſe parts, which are of very large extent, containing great numbers of people. The ſame excellent and worthy perſon was at the charge of printing, for the uſe of the Highlanders, 3000 catechiſms and prayer-books in Iriſh, with ſome paſſages of ſcripture, containing the principal heads of the Chriſtian religion, they never having had any ſuch helps before. He hath alſo lately given money for to reprint as many more. Several of thoſe bibles and catechiſms have been diſtributed among ſuch pariſhes in the *Highlands* as are near *Edinburgh*, and where the preſent commotions have not prevented their being ſent. The reſt will now be ſent very ſpeedily. In all thoſe places, where they have been ſent, the people

ple expreſs a wonderful joy, and a great deſire to know the word of God; ſo that they, that can read, are at ſome pains to teach others to read likewiſe. And ſuch is their zeal, that they ſend for the bible ſometimes to one part of the pariſh, and ſometimes to another, that they may read on the week days; and then they return it to the church on the Lord's day, that all may hear it read publickly. And it is very remarkable, that amidſt the publick commotions in that kingdom, ſcarce any of thoſe Highlanders, who have received bibles and catechiſms, and have been inſtructed in the knowledge of truth, have joined themſelves to the adverſaries of the preſent happy ſettlement. All ſort of people among them expreſs an earneſt deſire to have another impreſſion of the bible in Iriſh for themſelves and for their children, that by reading and hearing of that ſacred book, they may be delivered from ignorance and barbarity. The money collected for carrying on the work is to be depoſited with the reverend doctor *Horneck*, who hath been pleaſed charitably to accept of the trouble of receiving it. Several worthy perſons both of *England* and *Scotland* have promiſed their concurrence, and ſignified the proportions they intend to give, of whom alſo not a few have already ſent their money to Dr. *Horneck*, at his houſe in *Exeter-ſtreet*, who hath a liſt of their names, with the ſums of money they have ſubſcribed or ſent. They, who have not yet ſent their money, are deſired to ſend it as ſoon as may be. The perſon employed for the printing this bible is *Robert Everingham* at the *Seven Stars* in *Ave-mary-lane* nigh *Paternoſter-row*. Mr. *Robert Kirk*, miniſter of *Aberfoyle* in *Monteith* in the *Highlands* of *Scotland*, is come to *London* to attend the preſs. The work is now begun, and will be finiſhed (God willing) before

Chriſtmas next. The books, which are ſubſcribed for by ſome charitable perſons of this kingdom, are to be diſtributed (by the advice and with the concurrence of perſons of public authority in the kingdom of *Scotland*) amongſt the poorer ſort of Highlanders. As for the books, which are ſubſcribed for by thoſe of *Scotland*, they are likewiſe to be beſtowed on poor people, ſo far as is needful; and as for the money, which ſhall be got from thoſe Highlanders, who are able to buy books for themſelves, it is to be kept in ſtore, as a fund for another impreſſion of the bible in Iriſh, or for printing ſome ſuch uſeful treatiſe in that language, as ſhall afterwards be thought moſt proper. We have ſufficient reaſon to expect, that ſchools will be ſettled in all pariſhes of the *Highlands*, that thereby this charitable deſign may be rendred effectual. This will be ſhortly recommended to the care of the parliament in *Scotland*. The paper and printing amounts to 275 *l.* at 1 *s.* 10 *d.* per book in quires, the binding (at 8 *d.* per book) amounts to 100 *l.* which in all makes 375 *l.* Towards which, we have the following ſubſcriptions, which amount to 244 *l.* 8 *s.* 8 *d.* So that there is wanting to complete the charge of paper and print 30 *l.* 11 *s.* 4 *d.* and for binding, 100 *l.* in all wanting 130 *l.* 11 *s.* 4 *d.* There are alſo new teſtaments to be printed, for the uſe of young children learning at ſchool, the number of which will be proportioned to the money that ſhall be given.

	l.	*s.*	*d.*
Mr. *Boyle* gave for this charitable uſe	8	6	8
As alſo did ſeveral other perſons to the ſum	236	2	0
Total amounting to, with Mr. *Boyle*'s,	244	8	8

III.

An answer to the objection against printing the bible in Iriſh.

IT is not to be doubted, that a great many, who make this objection, do it without any bad deſign, but only through their not conſidering the matter ſufficiently. And therefore to remove their miſtake and prejudice, the following conſiderations are offered unto them, whereby theſe two things will appear. 1ſt, That the extirpation of the Iriſh language, out of the *Highlands* of *Scotland*, is not poſſible in this age. And ſecondly, That it is not probable to be effected in ſucceeding ages. As to the firſt, it may appear ſufficiently to any, who will conſider the methods of doing it. As 1ſt, By colonies. 2dly, By ſcattering the Highlanders all over the nation. 3dly, By ſchools. 4thly, By ſending their children to ſerve in other parts of the kingdom, and ſo to learn Engliſh. As to the firſt, if ſeveral colonies ſhould be ſent among them, what could they do towards the extirpating the language, unleſs we ſhould ſuppoſe them more numerous than the inhabitants, which is impracticable? For neither could the reſt of the nation ſpare ſo great a number of people, nor yet could the barren mountains of the *Highlands* afford them the conveniencies of life. Beſides, the Highlanders not living in towns, but ſcattered up and down in very ſmall villages and ſingle houſes, the ſettling of colonies among them could not ſignify much to root out their language. As to the 2d of ſcattering the Highlanders all over the nation, it is an idle dream, not at all practicable; for neither would the generality of the Highlanders leave

their native ſoil, nor yet would others readily receive them. And, 3dly, As for ſchools, neither can they do it: for firſt we may ſuppoſe, that there will be ſtill too many, who go not to ſchool through the poverty and negligence of the parents, and uncharitableneſs of richer neighbours: now thoſe, that tarry at home, muſt needs retain their own language. 2dly, We may very reaſonably ſuppoſe, that many, who ſend their children to ſchool to learn to read Engliſh, are not able to keep them ſo long under the care of a ſchoolmaſter, as to have time to learn to ſpeak it, though they may have time to read and underſtand it pretty well in books. 3dly, Suppoſe one of ten or five children, who are ſent to ſchool, ſhould learn perfectly to ſpeak it, and underſtand it when ſpoken, yet what is this to the extirpating the language in this age? What muſt be done with the four of five or the nine of ten children, not to ſay any thing of aged perſons, who cannot ſpeak Engliſh? Ought not care to be taken, that they periſh not for lack of knowledge? Or ſhall the bleſſed means of heavenly light and comfort be with-held from them, as from a generation, that God hath curſed and forſaken? Far be it from all thoſe, that bear the honourable name of Chriſtians, to harden themſelves againſt their brethren, and under pretence of any human policy to fight againſt the kingdom of our God and Saviour. As to the fourth, to wit, ſending children from the *Highlands* to ſerve in thoſe parts, where they ſpeak Engliſh, it can ſignify but very little; for there are not many (in compariſon) who can be ſent into other parts of the kingdom; and it is known, that many, who have continued for ſome years in thoſe parts, where they ſpeak Engliſh, have never acquired ſo much ſkill in that language, as to be able to underſtand a ſermon

mon in it. As to the ſecond thing, that it is not very likely to be effected in ſucceeding ages, may appear from the following particulars. 1ſt, Where is here an inſtance of any ſuch thing, that has been done any where in the world, except in ſuch places, where the conquerors have been more numerous than the conquered? It is known to all, who are acquainted with the ſtate of *Europe*, that in moſt kingdoms there are ſome provinces, which ſpeak a different language from what is ſpoken in the reſt of the provinces of the ſame kingdom. 2dly, Many thouſand Highlanders are ſeparated from the reſt of the nation by iſlands, ſo that they have very little converſation or commerce with any but thoſe of their own language; and therefore it is very hard to imagine, how their language ſhould be extirpated. 3dly, It has not been known or heard of in this age, nor for any thing we can learn in ſome paſt ages, that any one pariſh, where they have been wont to preach in Iriſh, has learned ſo much Engliſh, as not ſtill to need a preacher in the Iriſh language. 4thly, In ſeveral pariſhes in the borders of the *Highlands*, where they preach only in Engliſh, there remain ſtill ſome corners, where the inhabitants go to have their children baptiſed, and to hear ſermons in the adjacent pariſhes, where they preach in Iriſh, becauſe they underſtand not thoſe that preach in Engliſh; which plainly ſhews, that the Engliſh language does not prevail ſo much over the Iriſh, as ſome would make the world believe. 5thly, About one half of the miniſters in the *Highlands* (according to our beſt information) preach only in Iriſh, which ſhews, that there is very little Engliſh underſtood in their pariſhes. And where they preach one half of the day in Engliſh, it is in many places of very little uſe to the generality of the people; of whom ſe-

veral can buy and ſell in Engliſh, who do not underſtand a ſermon in that language. As to the women and children, ſcarce one in twenty can ſpeak Engliſh throughout the *Highlands*. 6thly, It is very conſiderable, that in *Kintyre* (a country in the *Highlands*) whence the Highlanders were expelled, and where others, who ſpoke Engliſh, were planted in their ſtead, in proceſs of time, by frequent converſation with the neighbouring Highlanders, many of them, inſtead of propagating the Engliſh language, have learned Iriſh; ſo that now they preach once a day in Iriſh in the chief churches of the country. To which might be added, 7thly, That the Highlanders, as much as any people, are very much in love with their own ancient language, and jealous of all deſigns againſt it. After all that hath been ſaid, it doth ſufficiently appear, how little ground there is to think it likely, that the language of two hundred thouſand perſons can be extirpated; for by a moderate computation, there can be no fewer in the *Highlands*, where there are about two hundred pariſhes, which makes above a fifth part of the pariſhes of the whole kingdom: and therefore how neceſſary it is to carry on and encourage this deſign for the further reformation of ſo conſiderable a part of the kingdom. When once the children are provided with Iriſh bibles, and taught to read them, they will be means of inſtructing the families, to which they belong. And beſides the great advantage, which people in general will reap by this charitable work, the miniſters themſelves, and ſtudents in divinity, will thereby receive unſpeakable advantage. It will prevent the miſtakes, which many have been guilty of in tranſlating the holy ſcriptures; and by reading the bible in Iriſh, which will be no hard matter to do, for thoſe who can read

read Engliſh, this impreſſion being in the Latin character, they will be enabled in an apt and uniform ſtile (becoming ſoon familiar by uſe) with greater advantage to expreſs their thoughts in their addreſſes to the people, both in publick and in private. The ſcriptures are the weapons of the Chriſtian warfare; and ſhall we unchriſtianly and unmercifully deprive our brethren of that, which they have ſo great need of in their defence and ſafeguard? How careful has the church been in all ages (except ſince Popery prevailed in the world) to tranſlate the holy bible into the language of all nations, which were converted to Chriſtianity! And, not to mention what was done in other countries, *Bede* tells us, that in this iſland the bible was read in five dialects, then vulgarly uſed, to wit, of the Angles, the Britains, the Scots, the Picts, and the Latins. How juſt a prejudice againſt the Papiſts is their hindering people from reading the holy ſcriptures! They put that light under a buſhel, which God hath appointed to be ſet on a candleſtick.

IV.

Mr. Kirkwood *to Mr.* Boyle.

Aſtwick, Nov. 5,. 1687.

Honoured Sir,

THIS is only to ſhew you, that the biſhop of *Roſs*, with the clergy of his dioceſe ſynodically aſſembled, by one of their number deſires, that thanks may be returned you in the moſt affectionate manner, for that very good work, the making the ſcriptures to be more known, when others have deſign to eclipſe them. The number of the miniſters of that dioceſe are 31. They

propoſe this, that if you have ſo many bibles as may ſerve them, each of them one, they are moſt willing to pay for them. As for the catechiſms, they give this account, that the province is ſufficiently furniſhed with them already in the Iriſh tongue. This is all that I have heard of late. I know not whether theſe catechiſms, which they mention, are printed: if it is ſo, they are both tranſlated and printed very lately. I hope to hear ſhortly from other parts of the *Highlands*, where there is ſtill, for ought I know, need of ſuch helps. I ſhall not fail to acquaint you, whenever I hear from thoſe parts. When theſe ten or twelve bibles (which my friend Dr. *Denvane* told me you intended to give to the Highlanders) are bound, I have deſired a friend of mine to ſend them carefully. If you think fit to ſend ſome dozens more unbound, I ſhall take care, that they be bound in *Scotland*, and diſtributed to the beſt advantage. I have wrote to thoſe, who divide them amongſt the Highlanders, to give them chiefly to ſuch miniſters, whoſe pariſhes are in greateſt want of them, with theſe two conditions: 1ſt, that the miniſters read ſome chapters every Lord's day to the people who never heard a chapter read in their lives; and on other days, when they can have occaſion, as at baptiſms, burials, marriages, *&c.* The 2d is, that the miniſters take care of the bible, as being for the uſe of the pariſh, that it be not alienated from this deſign; ſo that if a miniſter be removed into another pariſh, or die, yet the bible may ſtill be kept and preſerved for the uſe of the ſame pariſh. If there are more bibles than ſerve each pariſh, then ſome may be given to the more numerous and conſiderable families, for the benefit of the children and ſervants, who know not the Engliſh tongue. I thought fit to mention the

ſending

ſending a good many bibles together, becauſe I hope they may be more uſeful now than before, having heard of the good ſucceſs, which ſome zealous perſons have had in preaching amongſt them of late. As to the number of the parishes in the *Highlands*, I believe they are not above 200, if you think fit to ſend ſo many. I doubt not but it would be of ſingular advantage towards your deſign, if you wrote a letter, addreſſed in general to the biſhops and clergy of the *Highlands* of *Scotland*, or to the miniſters of the Goſpel in the churches of the *Highlands* of *Scotland*, wherein might be repreſented to them your deſign in cauſing theſe bibles to be printed, and the deſire you have, that they may contribute their aſſiſtance in making your deſign effectual for the purpoſes of the Goſpel. I know your piety and zeal to be attended with ſo much prudence and diſcretion, that you are able to do this in that manner, which will greatly conduce towards the rendering your work, which you have done already, ſo much the more profitable. For the better diſperſing of ſuch a letter (which I very much wiſh) there might be 4 or 500 of them printed: or, if you are not for that, care ſhall be taken to tranſcribe ſeveral of them. I hope you will pardon the freedom I uſe in this matter. If I know how to be ſerviceable to you in any good deſign, you may expect to find me always ready to ſhew you, how much I am,

Honoured Sir,

Your moſt affectionate
and moſt humble ſervant,

JAMES KIRKWOOD.

HE,

He, whom I have desired to take care of the bibles, is called *Oswald*, a book-binder, at the *Blue Posts* in *Air-Street Piccadilly*.

I have wrote to *Scotland*, that if it will do well enough to print the little books in the English character, as I believe it will (for all who can read the one, as I am informed, can read the other) then they may print as many as they think fit at *Edinburgh*, where they can easily find an Highlander to oversee the press. This, if it succeed, will prevent a great deal of trouble. What expence they are at in printing them, may be sent by a bill of exchange.

V.

Mr. Kirkwood *to Mr.* Boyle.

Astwick, Dec. 15, 1687.

SIR,

YESTERDAY I heard from Mr. *Oswald* (of whom I wrote to you) that there are 32 bibles ready to be sent with the first occasion. I have writ to the bishop of *Ross* this inclosed, which I thought fit to send to you, that if it is not wholly according to your thoughts and design (which I have presumed to guess at in this manner) then you may either acquaint me more fully with your mind, or desire Mr. *Oswald* to write to the bishop, unless perhaps you may think good to write yourself. If you think fit to send my letter as it is, be pleased to seal it up, and let Mr. *Gregg* deliver it to Mr. *Oswald*, to whom I have written about the bibles, that they may be sent safely to *Scotland*. Since my last to you I have heard concerning the Irish translation of the prayer-books, *&c.* that they have a great mind, that they be printed

printed in *Scotland*, if it can be got done. I heartily pray for your preſervation, and that God may direct and aſſiſt you in all your ways. I am,

SIR,

Your moſt affectionate and
moſt humble ſervant,
JAMES KIRKWOOD.

VI.

Mr. Kirkwood *to the biſhop of* Roſs.

Aſtwick, Dec. 14, 1687.

My Lord,

HAVING received a letter from one of my friends in *Scotland*, wherein I was told, that it was your lordſhip's deſire, as alſo of all the clergy of your dioceſe, that thanks might be returned to the excellent Mr. *Boyle*, for his generous and charitable offer of ſome bibles for the uſe of the Highlanders; I did accordingly acquaint him therewith. Since which time he hath been pleaſed to cauſe 200 bibles in the Iriſh tongue to be bound, whereof one is for your lordſhip, and thirty one for the miniſters of your dioceſe. The reſt are for the uſe of other pariſhes of the *Highlands*. I know Mr. *Boyle*'s deſign in cauſing theſe bibles to be printed; and now his beſtowing them freely where they are needful, is, that he may thereby contribute his aſſiſtance towards the propagating the knowledge of the Goſpel of Chriſt Jeſus, that by theſe ſacred writings, they who are in darkneſs, and ignorant of divine things, may be enlightened, and reſcued from ſin and folly. He deſires no other reward for theſe books, but to hear they produce the effect, which he heartily wiſhes and

prays

prays for. I doubt not but that your lordſhip will recommend to your clergy ſuch methods, as in Chriſtian prudence you judge may be moſt proper and effectual for promoting ſo good a deſign. Mr. *Boyle* hopes, that the miniſters will read every Lord's day ſome chapters to the people, or cauſe them to be read by fit perſons, at that time, and at other times, when people come to church. Theſe bibles are intended for the uſe of the pariſhes; and therefore you will be pleaſed to acquaint your clergy therewith, leſt otherwiſe by the death of the miniſters the bibles fall into the hands of thoſe, who will not take much care to ſerve this deſign. I am mighty glad, that it hath pleaſed God to raiſe up Mr. *Boyle* to perſue ſo excellent a deſign, as the ſpreading abroad the knowledge of the holy ſcriptures, which he hath done likewiſe in ſome other languages: ſo that he hath not only afforded great light to the world by his excellent philoſophical writings, but, which is far better, hath done his utmoſt to fill ſome of the dark places of the world with the light of divine truth, by theſe uſeful tranſlations of the bible into ſo many languages. How much may ſo great an example make many of our ſacred order to bluſh and be aſhamed, conſidering that we do ſo little good in the world, and concern ourſelves ſo little for the honour of our great maſter; have ſo little love for the ſouls of men, and are ſo barren of good deſigns and works, although we are appointed by God for this very thing, to make it our buſineſs to ſave men's ſouls, to make them wiſe and good, to turn them from darkneſs to light, by the light of pure and holy doctrine, and of an heavenly converſation? And as at all times this ought to be our meat and drink, ſo eſpecially when we ſee how great pains many are at to fill the world with darkneſs,

darkneſs, to corrupt men's hearts and lives, to lead them into errors and deluſions. I humbly beg your lordſhip's bleſſing and prayers. I am,

My Lord, *&c.*

JAMES KIRKWOOD.

VII.

Mr. Kirkwood *to Mr.* Boyle.

Aſtwick, Dec. 27, 1687.

SIR,

AFTER a long and tedious expectation, I have at laſt received a letter from the Highland Miniſter, to whom the tranſlation of the ſmall treatiſes was entruſted, giving me an account of his having finiſhed that work, and his having made ſome conſiderable additions for the uſe of the Highlanders. The miniſter's name is Mr. *Kirk*, who is one of very great worth, a learned, pious, zealous man. The tranſlation is at *Edinburgh*. I have wrote to ſome perſons there to take care there be printed about 2000 of them in the Latin character, according to Mr. *Kirk*'s deſire. He tells me, that both miniſters and gentlemen rejoice mightily to think, that there are hopes of their ſeeing the bible with catechiſms and prayer-books in their own language; and that the miniſters are very willing to read the ſcriptures publickly in their churches. He ſays, a great many miniſters and gentlemen would buy the bibles, if they were ſent down, and the price ſet on them; and that 200 might quickly be ſold: but (he adds) the *Highlands* require 2000: and if the bible were reprinted (which he ſays were fit to be done

done in the Latin character) they could ſell them, and get the money very ſoon. He ſays (which is very juſt) it behoved to be well attended, if there were another edition, by a very ſkilful Iriſhman. He hath remarked ſeveral errata in this edition, one letter for another, and ſome words wanting, which he promiſes to ſend me in a ſheet of paper, if ever there be need of it. He ſays, that generally all people in the *Highlands* are overjoyed with the thoughts of this, and are mighty eager to have bibles. He bleſſes the God of heaven and earth, who put this excellent deſign into your breaſt, and adds [who knows what a heavenly flame this ſpark may kindle?] He adds a great many pious and zealous expreſſions, which I have not at preſent time to tranſcribe. I would have ſent you the letter itſelf, but that it is ſuch as I am unwilling to loſe, and I know not, if this ſhall come to your hands. Not many days ſince, I ſent you a letter, with one incloſed to the biſhop of *Roſs*; I know not whether you have received them. Inſtead of this letter, I had a great deſire tohave come my ſelf, and talked with you of this affair, but that I am not as yet fit to travel ſo far, eſpecially in this ſeaſon of the year. If you think fit to ſend what bibles you have, if you have 200 remaining, you need not be at the trouble to cauſe them to be bound; they may be ſent in ſheets, with thoſe, which Mr. *Oſwald* hath received for the dioceſe of *Roſs*. If you judge it proper to put any price upon them, let me know, and I ſhall take care, that the money be received at *Edinburgh*, by thoſe, who will ſend it by a bill of exchange faithfully. A part of the price may be employed in printing the little treatiſes. As for the reprinting the 2000, I wiſh it were done. It were a deſign worthy of the concurrence of ſeveral

veral perſons, who have money, charity and zeal together; if there were ſuch an edition of ſo many bibles, I doubt not but the money might be recovered by the ſale of them, if that were needful. For my own part, I would willingly contribute 10 *l.* towards ſuch a work. I cannot but have a great compaſſion for many poor ſouls, which live under a ſad night of ignorance, ſuperſtition, and profaneneſs in thoſe barbarous places. Mr. *Kirk* tells me, he hath drawn up an Iriſh vocabulary, a grammar, and a collection of Iriſh proverbs, which makes him deſirous of a ſmall but competent number of Iriſh types, with the contractions, for which he will ſend money. If you think fit to let him have any of yours, they may be ſent with the bibles, and the price of them (if you let me know it) ſhall be ſent him. He writes of an Iriſh book or two lately printed at *Rome*, which I would buy for him. If you know any Iriſhman at *London*, who deals in books, I make bold to deſire you to cauſe your man, Mr. *Gregg*, to enquire about them, and to buy them for me, that they may be ſent, when other things are ſent. He writes a long account of the reaſon of the great delay in his tranſlation, which is too tedious to tranſcribe. At the ſame time, when I received this letter of Mr. *Kirk*, I received another from the excellent author of the catechiſm and prayer-books, Mr. *Charteris* (formerly profeſſor of theology at *Edinburgh*, but hath lived privately ſince the teſt) who deſires me to ſhew you, that, among many others in *Scotland*, he does highly honour and admire you, for your ingenious and learned labours, and your fervent charity and zeal; and wiſhes, that the Lord may long preſerve you, and may ſtir up others to imitate your excellent virtue and piety. I know you value not yourſelf one whit the more,

becauſe others do ſo, and therefore I am not afraid to let you know what this excellent perſon did deſire me. I heartily join with my worthy friend in wiſhing, that the Lord may long preſerve you, and that he may direct and aſſiſt you in every good word and work. Whenever I think I may venture upon a journey to *London*, I intend to come and wait upon you. I make bold to deſire you to give my moſt humble ſervice to your excellent ſiſter, my lady *Ranelagh*. I am,

SIR,

your moſt affectionate

and moſt humble ſervant,

JA. KIRKWOOD.

VIII.

Mr. Boyle *to Mr.* Kirkwood.

London, March 5, 1687-8.

Worthy Sir,

WHEN I come to look upon the date of your letters, I cannot but be much troubled to find, how long I have been your debtor for an anſwer. And I ſhould be as much aſhamed, as troubled at it, but that it pleaſed God to afflict me with a diſtemper, which, though his goodneſs made very ſupportable to me, yet it has made me ſo weak and tender, that I have not ſtirred out of the houſe theſe two months: during which time I was indiſpoſed to keep a literary correſpondence, even with my near relations; whereto I muſt add, that during a good part of the time, your letter was unhappily miſlaid. The biſhop and preſbytery of *Roſs* put too high a value upon my weak endeavours in a work, that need not expect a retribution

tribution from men. But I am very glad to find by their proceedings, how well they reliſh thoſe things, that aim at the propagation of the Goſpel; and I wiſh, that all, that ought to be equally zealous to promote affairs of this kind, would ſhew themſelves equally concerned for the advancement of this. Some paſſages in your letter oblige me to take the freedom to tell you, that I perceive you have not been rightly informed of my circumſtances in reference to the publication of the Iriſh bible. For at firſt my aim was, as I thought it became me, to do ſome ſervice to the country, wherein I was born, and have ſome little eſtate, though I have lived a great ſtranger to it; and eſpecially to contribute to the converſion and the inſtruction of thoſe Iriſh natives, that are moſt of them of the Romiſh religion. In purſuit of this deſign, I, with much ado, procured a verſion of the new teſtament, made, as I remember, in ; and finding it to have been many years out of print, the copies having, as I have been informed, been bought up, from time to time, by ſome Romiſh eccleſiaſtics; I cauſed a font of Iriſh letters to be caſt, and the book to be here reprinted; of which I ſent over ſome hundreds, ready bound, to be diſtributed gratis among thoſe, to whom they ſhould upon the place be judged the moſt likely to do good. Theſe things I relate, that you may not think it ſtrange, that I have not ſtill by me any number of new teſtaments in Iriſh; though I ſhould not have ſo much diſfurniſhed myſelf of them, if I had been then ſo informed, as now I am, that this language is ſtill that of a great part of the North of *Scotland*. And my main deſign being, as I ſaid above, to acquaint the native Iriſh with the divine oracles; as ſoon as I had with the ſame characters cauſed an

edition to be made of an Iriſh verſion of the old teſtament, which the excellent biſhop *Bedell* had long ago procured, and which, after the lately mentioned publication of the new teſtament, divers of the reverend Proteſtant clergy in *Ireland*, beſides ſome worthy prelates, intended to promote, but by various occurrences were hindered from accompliſhing their good deſires; as ſoon, I ſay, as the preſs had diſpatched this book, I ſent a competent number of theſe books into *Ireland*, to be diſtributed gratis by ſome pious and judicious perſons there. By all which particulars you may eaſily diſcern, that it was not, nor well could be, my principal deſign, to provide for the Highlanders and other natives in *Scotland*, that ſpeak *Iriſh*; and that it never was my purpoſe, that any of thoſe, that were printed at my charge, ſhould be ſet to ſale. But yet becauſe it were great pity, that the pious intentions and endeavours of your reverend miniſters ſhould be altogether diſappointed, I ſhall acquaint you with what comes into my mind about it. Before I well knew the great extent of the Iriſh language in *Scotland*, I had cauſed ſeveral old teſtaments to be bound for the uſe of your nation, divers of which remain yet in my hands. So that as to the one and thirty you mention, I can ſpare each of them a book, which I think you very diſcreetly adviſe, ſhould not be diſpoſed of by the miniſter at his death, or removed, but be kept for the uſe of the pariſh. And theſe will be accompanied with one with a gilt back, to be preſented to the right reverend biſhop of *Roſs*; which I hope his lordſhip will accept, as an acknowledgment of my juſt ſenſe of his pious forwardneſs to promote the good work I aimed at. I ſhall alſo ſend an hundred more unbound, ſince you deſire to have them ſo,

which,

which, with the other thirty two, ought to be diſpoſed of gratis to ſuch pariſhes as my lord biſhop, who I perceive conſults with his preſbytery, ſhall think fit. With Iriſh new teſtaments I formerly told you, that I was not furniſhed. And I did not think fit to reprint them with the old, not only becauſe it was judged needleſs; but becauſe it was ſcarce poſſible to bind them together, without making the volume much too bulky and unwieldy. But having, upon the late peruſal of your letters, cauſed enquiry to be made, I am informed, that a bookſeller, having with my leave printed a ſomewhat greater number of new teſtaments than I had contracted for, he has yet in his hands about fifty old teſtaments, and about one hundred and fifty new ones. He can afford each whole bible for a mark, provided the whole fifty be taken off his hands; and for the ſupernumerary hundred, or thereabouts, of new teſtaments, he can part with them at three ſhillings a piece in quires.

IX.

Preſbytery of Roſs *to Mr.* Kirkwood.

Canonry of *Roſs*, Oct. 15, 1688.

Reverend brother,

WE the preſbyters of the dioceſe of *Roſs* being this day ſynodically convened, our right reverend biſhop cauſed read publickly a letter from you to his lordſhip, dated June laſt; wherein, to our great ſatisfaction, we heard an account of the pious endeavours of the honourable and excellent Mr. *Boyle*, and were ſurpriſed with the bountiful offer you were pleaſed in his name to make, of a bible and conſiderable number of

catechiſms tranſlated into the Iriſh language, for every pariſh within this dioceſe: for which we can return nothing more ſuitable, than our moſt hearty thanks to the excellent and famous Mr. *Boyle*, and our humble prayer, that God may reward himſelf, and bleſs all thoſe his good deſigns, for the benefit of mankind, and withal to return you alſo our thanks for repreſenting to him our need and deſires for theſe books. We ſhall uſe our utmoſt endeavours to proſecute all his religious deſigns, by following thoſe methods, which he by you recommends as far as the circumſtances of our people can allow; for ſo our reverend biſhop has, with a great deal of affection and reſpect to that worthy perſon, very earneſtly laid upon us. We are alſo uſing all diligence to get that noble preſent of books brought among us; but the diſtance of the place, the unuſual ſtorminess of the weather, and the confuſions, that we are all put into by the march of our pariſhioners, who are commanded to repair unto the King's hoſt, under the ſevere penalties of the law, makes us hopeleſs to get them brought to this place, for ſome time, till it pleaſes God to calm things, as well as the weather. But the zeal we have to enjoy the benefit of them will not ſuffer us to be negligent about them. In the mean time, we ſhall be moſt ready to do all ſervices, that are in our power, to the generous Mr. *Boyle*, and to you, to whom alſo we think ourſelves much obliged, and ſhall never ceaſe to remember you both in our prayers; for we are, and ſubſcribe ourſelves by the clerk of the meeting,

Reverend brother,

Your affectionate brethren to ſerve you,

James Roſs, Cl. Synod. Mr.

X.

Mr. Kirkwood *to Mr.* Boyle.

July 13, 1689.

SIR,

I SHOULD have waited upon you before I went out of town, but I have been obliged to be with a perſon, who had the ſmall-pox, and is now dead of them; which makes me, that I do not come to wait upon you myſelf, knowing, that you have never had that diſeaſe. As for what you mentioned to me, when I was laſt with you, about giving ſome more bibles to the Highlanders, I have conſidered of it with Mr. *Kirk*, and other diſcreet perſons, who do not think it neceſſary, at this time, ſince each pariſh hath a bible already ſent to them, or deſigned for them; and as for others, this impreſſion I hope will be ſufficient for them, for ſome time. We cannot but be more and more ſenſible of your generous charity, for which God will reward you. As for the new teſtaments, which are not yet diſtributed, if you pleaſe to beſtow of them upon the pariſhes, which are largeſt, and have greateſt need of them, it will be a very great and excellent preſent to thoſe poor people. Mr. *Everingham* ſays, he thinks he has but about thirty new teſtaments belonging to you. If you think fit to beſtow them, they may be ſent with the bibles, which are now a printing, when Mr. *Kirk* returns to *Scotland*. As for the binding of them, we ſhall take care, that it be done, without putting you to any more charge, which hath already been very extraordinary. Mr. *Everingham* tells us, that he is obliged to make uſe of two of your Iriſh bibles, which are neceſſary in correcting;

which I know you will be very well ſatisfied with. I heartily wiſh you health and all ſort of happineſs. I hope God will, in his good time, reſcue *Ireland* from the hands of wicked men. I am,

SIR,

Your moſt affectionate
and moſt humble ſervant,
James Kirkwood.

XI.

Mr. Spalding *to Mr.* Boyle.

Edinburgh, June 28, 1690.

SIR,

I AM appointed by the general meeting of the miniſters and elders of this church, as to ſhew the ſenſe they have of your great pains in cauſing emit the bible in the Iriſh language, ſo to deſire, that theſe two hundred Iriſh bibles already at *Edinburgh* may be at the diſpoſal of the next general aſſembly of this church, to be held on the third thurſday of October next; and that they may not be diſperſed, until the ſaid general aſſembly order the viewing of the tranſlation, and their being made uſe of publickly in congregations. This is deſired of you, in the name and by the appointment of the ſaid general meeting, by,

SIR,

Your honour's very humble ſervant,
and their clerk,
Jo. Spalding.

DIRECT your return, *To* Thomas Edgar, *chirurgeon, at his ſhop, over-againſt the Croſs, on the north ſide of the ſtreet*, Edinburgh; *for Mr.* John Spalding, *miniſter at* Kirkcudbright.

Mr.

XII.

Mr. Boyle *to* Mr. Kirkwood.

London, October 18, 1690.

SIR,

I CONFESS you have exerciſed a great deal of charity (which yet I ſhall not be ſurpriſed to find in you) if you have not cenſured me in your thoughts, for my not having ſent you all this while an acknowledgment of your obliging letter, and the valuable preſent that accompanied it. But though my ſiſter and I were juſtly ſatisfied with the good counſel and reflections contained in your pious and ſeaſonable book; yet, when I ſhould have returned you my thanks for it, in an anſwer to your letter, I found the care I intended to take of it had not kept it from miſcarrying, as, after a fruitleſs ſearch, I preſumed it had done. But on the laſt Lord's day, turning over ſome papers, for which I had a peculiar regard, I happily lighted on that, which I had ſo long miſſed. I need make no return to what you are pleaſed to ſay to my advantage and your own diminution, ſave that I look upon the former as a compliment, and the latter as a dictate of modeſty. But I am altogether of your mind, of what you write about the education of youth; for I think the rectifying of that to be a thing ſo important, that, till it pleaſe God to awaken men to a greater ſenſe than they yet have of the neceſſity and uſefulneſs of that, I ſhall ſcarce expect any ſuch reformation as I wiſh, either of men's principles, or their manners. And I think it as much the intereſt, as duty, of thoſe, whom it concerns, to liſten to the good advices you give them in your ſerious diſ-

courſe. Not long after I received the favour of your letter, there came to my hands, out of *Scotland*, a ſhort one (of a long date) from an unknown writer; to whom, becauſe he was ſo, I did not think fit to return an anſwer, till I had conſulted you about the contents. And during the time I could not find your letter, the other, that I thought I had carefully put up, was unhappily miſlaid too. For which reaſon, I muſt beg you to aſſiſt me to apologize for the delay occaſioned by that unlucky accident. But now, having recovered both your's and your countryman's, I muſt deſire your thoughts, what will be fit for me to do upon the latter, whereof a copy is incloſed to you, by,

Sir, your's, *&c.*

Robert Boyle.

XIII.

Mr. Kirkwood *to Mr.* Boyle.

Aſtwick, October 30, 1690.

SIR,

YESTERNIGHT I received your very kind and obliging letter, for which I return you my moſt humble thanks. I am glad, that the little plain treatiſe I made bold to ſend you, has met with your approbation. This is the effect of your goodneſs and charity, and of your zeal for any thing, that ſeems to tend to the honour of our great maſter, who accepts of poor and weak endeavours, if they are ſincere.

As to the affair of the bibles, I have not been unmindful of it. I have writ to ſeveral perſons to do what they can to render the deſign effectual; particularly

particularly I have writ to one of the miniſters of *Edinburgh*, Mr. *David Blair*, who correſponds with me at preſent about promoting that good work. In my letters to him (the laſt whereof was writ about a month ago) I gave him an account of the bibles and catechiſms you ſent to *Edinburgh*; I ſhewed him how your great charity, in cauſing ſo many bibles to be printed, and your beſtowing 200 of them upon the *Highlands* of *Scotland*, has encouraged ſeveral pious and charitable perſons, chiefly of this kingdom, to give very liberally towards printing 3000 more bibles and 1000 teſtaments, whereof the teſtaments are already bound, as alſo about 2000 of the bibles. I acquainted him likewiſe, that you have been at the charge of printing 3000 catechiſms, beſides the firſt 3000. I deſired him therefore, earneſtly to recommend this buſineſs to the general aſſembly, that they might think of the way, how to tranſport into *Scotland* the bibles, teſtaments and catechiſms, which are now ready at *London*; and to conſider how to diſtribute into the *Highlands* both the books you have given, and ſo many of the reſt of the books, as at preſent are neceſſary to be diſtributed amongſt the Highlanders. The great thing, which I deſired him to recommend to the general aſſembly, was, the ſettling of ſchools in every pariſh of the *Highlands*, that the children may be taught to read, and to make uſe of the catechiſms and bibles; by which means they may prove happy means of propagating the knowledge of God in the families, to which they belong. Thoſe things I have likewiſe recommended to ſome other miniſters, who, I hope, have been careful to act their part faithfully in promoting this deſign in their general aſſembly. It is likely the miniſters will deſire the concurrence of the parliament in a matter of ſo great importance,

tance, which tends ſo much to the benefit both of church and ſtate. I wrote lately to Dr. *Horneck* to propoſe it, by ſome fit perſon, to the King, that he would recommend the encouragement of this deſign to the parliament of *Scotland*, that they may promote it ſo far as they can at this time. I have heard ſince from the doctor, who approves the thing. There ſeems a great deal of reaſon, that the King ſhould appear in a matter, which is ſo much for the honour of the great King. And though the preſent confuſions in the *Highlands* do not permit to do all that we wiſh, yet ſomewhat may be done and projected, till there be an opportunity to do more.

I THOUGHT it would not be improper, in anſwer to ſome part of your letter, to give you this general account of the affair.

YOU are pleaſed to deſire my thoughts what to do as to Mr. *Spalding*'s letter. It is your humility to propoſe this. Though I am not fit to give advice to a perſon of your wiſdom, yet, in obedience to your commands, as a well-wiſher to the deſign, I ſhall give you my thoughts. If you yourſelf judge it convenient to write, it ſeems not amiſs, in my humble opinion, to ſignify to Mr. *Spalding* your being deſirous, that they, whom he mentions in his letter, would think of fit ways to diſtribute, and to render uſeful the bibles and catechiſms you have beſtowed for the uſe of the Highlanders; and that you and a great many more would be very glad to hear of their zealous endeavours to reſcue ſo great a part of the nation from that ſad ſtate of ignorance and barbarity, in which you hear they are. This, when ſuggeſted by you, may prove no ſmall ſpur to them. I know the principle of divine charity, which moved you at firſt to attempt the impreſſion of the bible in Iriſh,

will

will move you to do any thing you think will tend to render what you have done ſucceſsful and effectual.

WHEN Mr. *Kirk* went to *Scotland*, I wrote to the perſon, with whom your bibles, *&c.* are depoſited, not to give any more of them to any body, but to leave it wholly to the enſuing general aſſembly, to order the diſpoſal of them, according to your intention and deſign; of which I wrote fully to Mr. *Blair*, from whom I expect to hear very ſhortly what the general aſſembly has done in this important affair. I have nothing elſe to add, but my hearty prayers for your ſafety and preſervation. I am,

SIR,

Your moſt obliged and

moſt affectionate humble ſervant,

JAMES KIRKWOOD.

XIV.

Biſhop of Roſs *to Mr.* Kirkwood.

Reverend Sir,

I HAD the favour of your diſcreet and obliging letter, dated June the 16th, upon the 24th of Auguſt. You muſt not think it was the fault of your correſpondent, that it came not ſooner to my hand, but the diſtance of the place from *Edinburgh*, and the uncertainty of a ſure bearer. However I thought myſelf extremely obliged by your letter; not only becauſe it gave me an account of the labours of that honourable and excellent perſon, Mr. *Boyle*, but becauſe it gave me alſo an opportunity of a new converſation (at leaſt by letters) with ſo worthy a perſon as yourſelf. I

have

have cauſed tranſcribe your letter, and am to ſend a double thereof to every biſhop any ways concerned with people in his dioceſe, that ſpeak Iriſh; judging, that it would better ſpeak forth the learned Mr. *Boyle*'s mind and your's, than any thing I could ſay; and if I cannot get theſe books brought hither before the meeting of my ſynod, I ſhall with them adviſe of the beſt way of doing it. I ſhall alſo recommend to my brethren, and do what is in my power, to proſecute the religious deſign of the author of ſo great a favour as you narrated; though I am much of your mind, that not a few even of the preſbyters muſt begin at the alphabet, that they may but read the Iriſh language in its proper character, there being ſo few books in that language and character paſſing in all this country; and we are removed at ſo great a diſtance from *Ireland* and the *Weſt-Iſles*, that it will oblige the preſbyters to paraphraſe many words in the Iriſh bible before they be underſtood fully by their people: ſo that I cannot condemn the deſigns of ſome, to have that language quite worn out of this country; and if with it we could alſo put away the barbarity of the manners of ſome of our Highlanders, I ſhould think it a very good work. I took care, a conſiderable while ago, to cauſe ſome of the preſbyters, who were beſt ſkilled in that language, to tranſlate into Iriſh a catechiſm, which is appointed to be made uſe of in all the dioceſe either in Engliſh or Iriſh, according to the capacities of the perſons to be catechiſed, as it is alſo in ſome other dioceſes; and in my opinion, it ſerves the ends of catechizing better than that of the aſſembly. I ſend you herewith a double of it in the Engliſh, that at your conveniency I may have your opinion about it, and, if it be poſſible, the judicious ſentiments alſo of the pious

Mr. *Boyle*. Care alſo was taken, that there be ſchools for teaching the youth to read in every pariſh; but I confeſs hitherto it has only been in the Engliſh language: and no leſs care is taken, that every miniſter read a portion of holy ſcripture; and in places, where moſt of the people underſtand only the Iriſh, he is at the pains to tranſlate it into that language, for which this noble preſent of the Iriſh bible will be very uſeful to them, becauſe I have heard ſome of them complain, that they could not get words to expreſs in Iriſh ſome paſſages of holy writ. I cannot but with you regret, that ſo few intend ſo good and catholick deſign as the worthy Mr. *Boyle* does; but this adds the greater luſtre to his fame. We have many excellent treatiſes written of late by the worthy guides and paſtors of the church of *England*, and ſome alſo by learned and pious laicks; all which are very uſeful for aſſerting and improving our holy religion, for which we are extremely obliged to them: but if in this poor church and nation we make fewer publick appearances, you are better acquainted with the reaſons of it, than that you need be told them by me. I ſhould think all was well enough with us, if we could truly uſe the ancient motto, *non magna loquimur, ſed vivimus*; but that I do not weary you in my firſt letters, I ſhall only ſay, that I have ſeen moſt of the judicious writings of the learned Mr. *Boyle*; and they have raiſed in me, as I think they muſt do in all others, an high but juſt eſteem of him; and for this laſt bounty, by which he has obliged all my charge and me, I know his pious generoſity expects no other reward but our prayers for him, wherein ſhould we be wanting, we were much to blame before God and man. Nor can I cloſe before I return you my own hearty thanks, as well

as

as thoſe of ſuch in theſe bounds, as I have ſpoken with, for your kindneſs in this affair to us all, and in your letter to myſelf. When my brethren meet with me in the ſynod, it is like they will expreſs their own ſenſe of it. Wherefore, intreating, that you may upon occaſion let me know of the health and other good works of Mr. *Boyle*, and what way I can beſt ſerve him or you, I heartily commend you to the grace of God, and beg your prayers for,

Reverend Sir,

Yours, &c.

J. Rossen.

NUMBER V.

Letters from Mr. *John Eliot* of *New-England* to Mr. *Boyle*, relating to the ſervices of the latter for the propagation of the Goſpel in *America*. *Life*, p. 87.

I.

Roxburg, Sept. 30, 1670.

Right honourable,

YOUR conſtant care of, and ſtedfaſt affection unto this Indian work (which the Lord hath in great undeſerved mercy to me, put under my hand, a weak and unworthy inſtrument herein) do greatly oblige my heart to honour you, and pray, that it may be remembered by the Lord in that great

great day, when he will ſay [*come ye bleſſed*] unto all the ſincere benefactors unto his people. You have alſo added no ſmall encouragement unto me, in that worthy gift, which your honour is pleaſed to beſtow upon me, *viz.* *Pool*'s *Synopſis*, or *critica ſacra* upon the whole bible, which, though it be not yet come, is under the care and faithful hand of my worthy and true friend Mr. *Aſhurſt*; for which deſirable gift, I return unto your honour my humble thanks. Touching the preſent ſtate of this work with the Indians, I have written to our worſhipful commiſſioners, who will ſend it unto your honour, governor of the honourable corporation; and therefore I ſhall keep ſilence of that matter here. And whereas your honour will ſee, that I have undertaken and begun a kind of academical reading unto them, in their own language, thereby to teach the teachers and rulers, and all that are deſirous of learning: I find, by experience, that it will be very neceſſary to have ſome entertainment of food, for all the principal men at leaſt, which do come; for many are to come a great way, and had we but food to entertain them when they come there, it would be ſome encouragement. And I have ſome thoughts, if God give life and means, to read medicine, and call for ſuch roots (for they altogether uſe the root, and not the herb) as they have experience of; eſpecially had I wherewith to recompenſe any, that bring in a deſirable experiment. There hath been a rare work of God this ſummer in a great pond at *Watertown*, where all the fiſh died, and were not willing to die in the waters, but as many as could thruſt themſelves on ſhore, and there died; not leſs than twenty cart load, by eſtimation, lying dead, all at once, round about the pond. An eel was found alive in the ſandy border of the pond, and being

caſt

caſt into the water, ſhe wriggled out again, as faſt as ſhe could, and died on the ſhore. An inhabitant of the town, living by the pond, his cattle uſe daily to drink there; but then, for three days together, they refuſed there to drink; but after three days, they drank of the pond, as they were wont to do. When the fiſh began to come aſhore, before they died, many were taken and eaten, both by Engliſh and Indians, without any hurt; and the fiſh were very good. Now the diſeaſe of the ſtone groweth frequent among the Engliſh, and beginneth among the Indians; which ſtirreth me to ſearch, and I clearly find, that a crude ſtomach provides the matter, and cold in and about the bladder and ureters is the efficient of the ſtone, eſpecially in thoſe, whom I have converſed with, as may be demonſtrated. But I am over bold to preſume to meddle ſo far unto your honour. I therefore ſhall ceaſe to give you any further trouble at preſent. So committing you to the Lord, and to the word of his grace, I remain

Your honour's to ſerve you

in the ſervice of the Lord Jeſus,

John Eliot.

II.

Roxburg, October 23, 1677.

Right honourable nurſing fathers,

THE poor praying Indians do thankfully acknowledge, that (under God our heavenly father, and under Jeſus Chriſt our redeemer, who redeemeth us out of all our troubles) you have been the means and inſtruments in his hand, to ſave and deliver us. God moved your hearts to own us,

in

in that black day, when all were againſt us, and we were almoſt ready to be ſwallowed up in deſtruction; which dark time we ought not to forget, nor your owning kindneſs unto us in that dark day.

AND ſince that, your charity hath greatly revived and refreſhed us. Many of our aged, decrepid, fatherleſs, and widows, ſtill wear the garments, not yet worn out, which your charity did, the laſt winter, clothe us withal. And although we yet know not what our honoured commiſſioners will do for us, whoſe favour we doubt not of; yet underſtanding, that ſome doubt is raiſed about your countenancing and encouraging our rulers, who are of us, and live among us, and, without whoſe preſence and aſſiſtance, the Lord's work of ſoul-inſtruction and edification will ſoon faint, ſink, and come to nothing; our humble petition is, firſt to God, that he, who hath hitherunto, would ſtill move your hearts for our good and welfare; and next, our petition is unto yourſelves, that we may have the countenance of your favour, to countenance and own our rulers among us, without whoſe countenance, our teachers will be of little power, eſpecially among our youth and riſing generations, who do not yet ſavour the things of the Goſpel of Jeſus Chriſt; and among ſtrangers, who have not yet taſted how good the Lord is, though for their protection and ſafety they have crouded in upon us.

NOBLE hearted Sir, your gift I do ſtill religiouſly keep, for ſome ſpecial and eminent ſervice of the Lord, in the Lord's time. In our firſt war with the Indians, God pleaſed to ſhew us the vanity of our military ſkill, in managing our arms, after the European mode. Now we are glad to learn the ſkulking way of war. And what God's end is, in teaching us ſuch a way of diſcipline, I

know not. By our late eaſtern war it hath pleaſed God to ſhew us our weakneſs by ſea, as formerly by land. The Indians took many of our fiſhing veſſels, and the men that belonged to them, and forced them to ſail whither they deſired: many of the men delivered themſelves and their veſſels; many Indians were ſlain, ſome Engliſh. The hiſtory of theſe actions I have not: others do attend that ſervice, to whom I leave it. The governor of *New-York* ſent a ſtrength this ſummer, and took poſſeſſion of a northern port, where they fixed and fortified themſelves: ſince whoſe coming thither, the Indians have not ſtirred much. Little action hath paſſed, but I hear not of any peace made. The Yorkers have taken in hand a chargeable deſign: what profit will come of it, I know not; time will diſcover that: whether their intention be to promote religion, or only trading, I know not. It pleaſed the Lord, very lately to permit a ſmall handful (not twenty) of the late ſcattered rod to make a ſore direption upon *Hatfield* and *Dearfield*, at *Conecticot*; where about twelve perſons were killed, more than twenty carried away captive, or loſt; ſeven dwellings burned, and ſundry barns full of corn; and ſince they have appeared at *Hadly*, burned the mill. They had parly with them, treated about reſtoring the captives, agreed of a time and place of meeting; but the Indians failed to appear. Theſe laſt actions have very much diſcouraged our people from repairing the deſtroyed towns, which ſome were beginning to do. We had a Sachem of the greateſt blood in the country, ſubmitted to pray to God, a little before the wars: his name is *Wanalaunſet*: in the time of the wars he fled, by reaſon of the wicked actings of ſome Engliſh youth, who cauſeleſsly and baſely killed and wounded ſome of them.

He

He was perſuaded to come in again. But the Engliſh having ploughed and ſown with rye all their lands, they had but little corn to ſubſiſt by. A party of French Indians (of whom ſome were of the kindred of this Sachem's wife) very lately fell upon this people, being but few and unarmed, and partly by perſuaſion, partly per force, carried them all away. One, with his wife, child, and kinſwoman, who were of our praying Indians, made their eſcape, came in to the Engliſh, and diſcovered what was done. Theſe things keep ſome in a continual diſguſt and jealouſy of all the Indians. I ſhall give your honour no farther trouble at preſent. We intreat your prayers, and commit you to the Lord, and reſt

Your honour's to ſerve you

in the Lord Jeſus,

John Eliot.

III.

Roxburg, Nov. 4, 1680.

Right honourable, charitable, indefatigable, nurſing father,

WHEN good works of pure charity are ſown three hundred fold thick, and that by a living hand, Lord what a reaping time or harveſt will there be! Sir, you are eminently mindful of that Goſpel charge, 1 *Tim.* vi. 17, 18, 19. *Charge them, that be rich in this world, that they be not high minded, nor truſt in uncertain riches, but in the living God, who giveth us richly all things to enjoy.* That they do good, that they be rich in good works, ready to diſtribute, willing to communicate, laying up in ſtore for themſelves a good founda-

tion againſt the time to come; a foundation not of grace unto juſtification, by way of merit, but a foundation of degrees of glorification, when God will in free mercy diſtribute his gifts of glory, according to our improvements of our talents in the exerciſe of grace: he that gained ten talents, ſhall have ten cities.

I KNOW it will pleaſe your charitable heart to hear how it fareth with thoſe, that are your alumni. We are in great affliction by the Manquaoy Indians: more than 60 at ſeveral times have been killed or captived; a narrative whereof major *Gookins* preſented to lord *Culpepper*, who was affected with it. Alſo he preſented a copy thereof to Sir *Edmond Andros*, who was likewiſe affected with it, though it is ſaid, that he might have prevented it. We hope he will move in it, and our Mr. *Pinchon* is gone up to join with Sir *Edmond* to endeavour a peace. Major *Gookins* intendeth to preſent your honour with a copy of the ſame narrative. The Eaſtern Indians do offer to renew peace with us, and to ſubmit themſelves to be taught to pray unto God. A chief Sachem was here about it, a man of a grave and a diſcreet countenance. Our praying Indians, both in the iſlands, and on the main, are (conſidered together) numerous; thouſands of ſouls, of whom ſome true believers, ſome learners, and ſome are ſtill infant; and all of them beg, cry, intreat for bibles, having already enjoyed that bleſſing, but now are in great want. Your honour's liberality in Engliſh bibles is a great favour, which we all with thankfulneſs receive; but the bible in their own tongue muſt help them to underſtand it. We are at the 19th chapter of the Acts, and when we have impreſſed the new teſtament, our commiſſioners approve of my preparing and impreſſing alſo the old. Your honour's

honour's bounty of 30*l.* towards our ſending the Goſpel to thoſe remote Indians, that ſpeak the language, whereinto the bible is tranſlated, I do religiouſly keep it, to be improved to the ſame end, to which your honour gave it, of which ſervice I am ſtill in hope, having more intelligence, that there is ſuch a people.

BUT by the immaturity of ſome occurrences, and the intentions of the ſhip's ſpeedy ſailing, I cannot give your honour any further diverſion at this time: intreating your prayers, I commit you to God, and reſt,

Your honour's to ſerve you
in any ſervice of Jeſus Chriſt,
John Eliot.

IV.

Roxburg, March 15, 1682-3.

Right honourable, charitable, nurſing father,

THIS winter the worſhipful Mr. *Stoughton* (commiſſioner) delivered to major *Gookins* (a pillar in our Indian work) and to me, the ſum of 6*l.* as the product of your honour's gift of charity; which we did diligently diſtribute to Chriſtian Indians, two aged blind women, others lame in their limbs, others decrepid with age; all which do bleſs you, the giver, and do praiſe God the fountain; and we, your diſpenſers of ſo great charity, do thankfully accept of ſo good an office, as to be the diſpoſers of ſo charitable gifts unto the poor ſervants of Jeſus Chriſt.

THE Lord's work ſtill goeth on among them, and though many of the younger ſort, ſince the wars (where their ſouls received a wound) have

declined, and too much miſcarried, yet now (through the grace of Chriſt) they are on the repenting and recovering hand; of which your honour may hear more, when the work is proſecuted, and brought unto a good effect.

The great work, that I travel about, is, the printing the old teſtament, that they may have the whole bible. They have had the whole, in the firſt impreſſion, and ſome of the old they ſtill have, and know the worth and uſe of it; and therefore they are importunately deſirous of the whole. I deſire to ſee it done before I die, and I am ſo deep in years, that I cannot expect to live long: beſides, we have but one man (*viz.* the Indian printer) that is able to compoſe the ſheets, and correct the preſs, with underſtanding. For ſuch reaſons, ſo ſoon as I received the ſum of near 40 *l.* for the bible work, I preſently ſet the work on foot; and one tenth part, or near is done: we are in *Leviticus*. I have added ſome part of my ſalary to keep up the work, and many more things I might add, as reaſons of my urgency in this matter. Touching thoſe remote Indians, to the North-Weſt, whoſe language agreeth with ours, ſo that they and we can ſpeak to each other's underſtanding, we have not, as yet, ſo full intelligence of them, as to make a report thereof. But I do both pray and wait for ſome information that way. And for the furtherance thereof, I do carefully reſerve your honour's gift of 30 *l.* to be improved in that ſervice, when the Lord ſhall pleaſe to open a door thereunto. The Manquaoy Indians have not ſtirred to fall upon us this laſt year; but we are not yet fully ſettled in peace, becauſe they declare the Eaſtern Indians to be their enemies; and the way unto them is thorough us; and our Wameſet Indians, who are our moſt northerly

northerly plantation, are in danger to be their thoroughfair. And this putteth us into many fears; but our hope and help is in God, our eyes are unto him; this world is a place and ſtate, wherein God's people muſt expect nothing ſtedfaſt, all things mutable and afflicting. But I ſhall ceaſe to give your honour any farther trouble at preſent; therefore, commending you to the Lord, and to the word of his grace, I reſt

Your honour's to ſerve you

in Chriſt Jeſus,

John Eliot.

V.

Boſton, June: 21,: 1683.

Right honourable nurſing father,

YOUR hungry alumns do ſtill cry unto your honour for the milk of the word in the whole book of God, and for the bread of life, which they have fed upon in the whole bible, and are very thankful for what they have, and importunately deſirous to enjoy the whole book of God. It is the greateſt charity in the world to provide for their ſouls. Should your honour pleaſe but to change the object of your bountiful charity, from their bodies to their ſouls, here is enough already ſent over to accompliſh the work; they only ſtay for that word from your honour, *fiat*. My age makes me importunate. I ſhall depart joyfully, may I but leave the bible among them, for it is the word of life; and there be ſome godly ſouls among them, that live thereby. The work is under great incumberments and diſcouragements. My heart hath much ado to hold up my head; but

doth daily drive me to Chriſt; and I tell the Lord, that it is his word, and your hearts are in his hand. I do therefore commit the whole to the Lord, and leave both it and myſelf to the Lord, who hath not left me wholly deſtitute. But I ſhall give your honour at preſent no farther trouble, for I am ſurpriſed with this opportunity of writing: therefore, committing your honour to the Lord, I reſt,

Your honour's to ſerve you
in the Lord,
John Eliot.

VI.

Roxburg, November, 27, 1683.

Right honourable, right charitable, and indefatigable, nurſing father,

ALTHOUGH my haſty venturing to begin the impreſſion of the old teſtament before I had your honour's (*fiat*) may have moved (as ſome intimate) ſome diſguſt, yet I ſee that your love, bounty and charity, doth ſtill breath out encouragement unto the work, by ſupplies of 460*l.* unto the work, for which I do return my humble thankfulneſs to your honour, and take boldneſs to intreat favour for two requeſts.

FIRST, I pray, that you would pleaſe to accept an apology for my haſte. I am deep in years, and ſundry ſay, if I do not procure it printed while I live, it is not within the proſpect of human reaſon, whether ever, or when, or how, it may be accompliſhed. It is Chriſt's work, and for the good of ſouls, which is my charge to attend, and run adventures to accompliſh, eſpecially when divine providence brought into my hand ſome ſmall encouragement

couragement to begin. But if this apology be ſhort (though capable of much inlargement) yet then,

MY ſecond humble requeſt is, that you would pleaſe to draw a curtain of love over all my failures, becauſe love will cover a multitude of tranſgreſſions. The work goeth on now, with more comfort, though we have had many impediments, partly by ſickneſs of the workmen, for it is a very ſickly and mortal time with us, as alſo the rigour of the winter doth now obſtruct us. The work goeth on, I praiſe God; the ſabbath is ſanctified in many places, and they have ſtill fragments of their old bibles, which they make conſtant uſe of.

I DESIRE to take boldneſs to propoſe a requeſt. A veſſel carried away a great number of our ſurpriſed Indians, in the times of our wars, to ſell them for ſlaves; but the nations, whither he went, would not buy them. Finally, he left them at *Tangier*; there they be, ſo many as live, or are born there. An Engliſhman, a maſon, came thence to *Boſton*, he told me, they deſired I would uſe ſome means for their return home. I know not what to do in it; but now it is in my heart to move your honour, ſo to mediate, that they may have leave to get home, either from thence hither, or from thence to *England*, and ſo to get home. If the Lord ſhall pleaſe to move your charitable heart herein, I ſhall be obliged in great thankfulneſs, and am perſuaded, that Chriſt will, at the great day, reckon it among your deeds of charity, done unto them, for his name's ſake. But I ſhall give your honour no farther trouble at preſent. I humbly requeſt your prayers for me. So, commending you to the Lord, and to the word of his grace, I reſt,

Your honour's to ſerve you in our Lord Jeſus,

John Eliot.

VIII.

Roxbury, April 22, 1684.

Right honourable and indefatigable benefactors,

THIS laſt gift of 400*l.* for the reimpreſſion of the Indian bible doth ſet a diadem of beauty upon all your former acts of pious charity, and commandeth us to return unto your honours all thankful acknowledgments, according to our abilities. It pleaſed the worſhipful Mr. *Stoughton*, to give me an intimation, that your honours deſired to know the particular preſent eſtate of the praying Indians; and alſo, when *Moſes*'s pentateuch is printed, to have ſome copies ſent over, to evidence the real and good progreſs of the work.

YOUR honours intimation hath the force of a command upon me, and therefore I ſhall briefly relate the religious walking and ways of the praying Indians. They do diligently obſerve and keep the ſabbath, in all the places of their public meetings to worſhip God. The example of the Engliſh churches, and the authority of the Engliſh laws, which major *Gookins* doth declare unto them, together with ſuch mulcts, as are inflicted upon tranſgreſſors; as alſo and eſpecially, the clear and expreſs command of God, which they and their children learn and rehearſe daily in their catechiſms; theſe all together have fully poſſeſſed and convinced them of their duty, to keep holy the ſabbath day. So that the ſanctifying of the ſabbath is a great and eminent part of their religion. And though ſome of the vain and carnal ſort among them are not ſo girt to it, as were to be deſired, yet the grave and religious ſort do conſtantly worſhip God, every ſabbath day, both morning and evening, as the Engliſh do.

THE acts of worſhip, which they perform in their public meetings, are as followeth.

THE officer beginneth with prayer, and prayeth for all men, rulers, miniſters, people, young, old, ſick, well, Engliſh or Indians, *&c.* according to that word, 1: *Tim*: ii: 12. *I will that firſt of all prayers be made*, &c. I ſay, the officer beginneth with prayer, *viz.* where they have an officer ordained, as it is almoſt in all the churches. But we have more public aſſemblies, that meet every Lord's day, to worſhip God, than we have churches. There is not yet a church gathered in every place, where they meet to worſhip God and keep the ſabbath; but where it is ſo, they chuſe ſome able godly man (the beſt they can) to manage the worſhip among them: him they call their teacher, and he beginneth with prayer, *&c.* When prayer is ended, they call forth ſuch as are to anſwer the catechiſm; and though this is ſometimes omitted in ſome places, yet that is the way they walk in, and it is often practiſed. When catechiſm is ended, a chapter is read, ſometimes in the old teſtament, and ſometimes in the new; and ſundry of the young men are trained up, and called forth to this ſervice, ſometimes one, ſometimes another.

WHEN the chapter is read, a pſalm is ſung, which ſervice ſundry are able to manage well.

THAT finiſhed, the preacher firſt prayeth, then preacheth, and then prayeth again. If it be the day for the Lord's ſupper to be celebrated, the church addreſs themſelves unto it, and the miniſter doth exactly perform it, according to the ſcriptures. When that ſervice is done, they ſing a pſalm, according to the pattern of Chriſt; then he bleſſeth the church, and ſo finiſheth the morning ſervice.

In the afternoon they meet again, and perform all the parts of worſhip, as they did in the morning; which done, if there be any infant to be baptized, they perform that ſervice according to the ſcriptures; which done, the deacon calleth for contributions; which done, if there be any act of publit diſcipline (as divers times there is, there being many failures among us) then the offender is called forth (being with care and diligence prepared) and is exhorted to give glory to God, and confeſs his ſin; which, being penitent, they gladly accept him, forgive him, and receive him. If it be not a ſatisfactory confeſſion, they ſhew him his defect, they admoniſh and exhort him to a more full confeſſion; and ſo he is left to ſome other time. This finiſhed, he bleſſeth the church, and ſo diſmiſſeth the aſſembly.

Moreover, major *Gookins* hath dedicated his eldeſt ſon, Mr. *Daniel Gookins*, unto this ſervice of Chriſt; he is a pious and learned young man, about thirty three years old, hath been eight years a fellow of the college; he hath taught and trained up two claſſes of our young ſcholars, unto their commencement; he is a man, whoſe abilities are above exception, though not above envy. His father, with his inclination, adviſed him to *Sherborn*, a ſmall village near *Natik*, whoſe meeting-houſe is about three miles, more or leſs, from *Natik* meeting-houſe. Mr. *Gookins* holdeth a lecture in *Natik* meeting-houſe once a month; which lecture many Engliſh, eſpecially of *Sherborn*, do frequent. He firſt preacheth in Engliſh, to the Engliſh audience, and then the ſame matter is delivered to the Indians, by an interpreter, whom, with much pains, Mr. *Gookins* hath fore-prepared. We apprehend, that this will (by God's bleſſing) be a means to enable the Indians to underſtand religion

religion preached in the Engliſh tongue, and will much further Mr. *Gookins* in learning the Indian tongue. Likewiſe major *Gookins* holdeth and manageth his courts in the Engliſh tongue; which doth greatly further the Indians in learning law and government in the Engliſh tongue; which is a point of wiſdom, in civilizing them, that your honours have manifeſtd your deſires, that it might be attended.

THE places, where the Indians meet to worſhip God, and ſanctify the ſabbath, are many; the moſt are ſtated places, others are occaſional. The ſtated places, in the *Maſſachuſets*, ſince the wars, are contracted into four, *Natik*, *Ponkipog*, *Wameſut*, and *Chachaubunkkakowok*. The occaſional meetings are at places of fiſhing, hunting, gathering cheſnuts in their ſeaſons. Alſo ſince the wars, the Mauquaoys, making incurſions upon the praying Indians, did cauſe them to make divers ſorts, to live ſafely in, and then they did there meet to worſhip God, and keep the ſabbath.

IN *Plymouth Pattent* there are about ten places, where they meet to worſhip God.

AN intelligent perſon, of *Martyn*'s vineyard, reckoned up unto me ten places, where God is worſhipped every Lord's day in that iſland.

AT *Nantukket* there be about five places of prayer and keeping ſabbaths.

THE reaſon of this diſperſion of places of public meeting to worſhip God, is this; there is but here and there a ſpot of good land, fit for planting corn, with accommodation of fiſhing; theſe ſpots of good land lye at a great diſtance from each other; ſome four or five miles, ſome eight or nine miles, ſome ten or twelve miles; ſo that it is impoſſible for them, eſpecially with women and children, to meet at one place; therefore all, that

that live together at one place, meet to worſhip God on the ſabbath day.

THUS I have briefly repreſented before you, right honourable, at your command, the preſent eſtate of the praying Indians, in reſpect of their religion. And what I have here expreſſed, for the ſubſtance of the things, I know them to be true, and I have often ſo practiſed among them.

BY this it appeareth, that they are, in ſome good meaſure, able (by the light of the ſcriptures, and by the example of the churches of Chriſt, and by ſuch inſtruction as they have had) to practiſe and manage the whole inſtituted public worſhip of God among themſelves, without the preſence or inſpection of any Engliſh among them, which is no ſmall addition and advancement of the kingdom of Chriſt; and I doubt not but it ſhall add much comfort and joy to your ſouls here, and ſhall add much weight of glory to your ſouls hereafter, who have been ſo diligent, liberal and conſtant in your ſupplies for the encouragement of this work of Chriſt.

AND it is no ſmall comfort to me, whom divine providence and grace hath made one of the poor inſtruments, to inſtruct and manage them unto this eſtate in Chriſt Jeſus, whereunto they have attained.

As for the ſending any numbers of *Moſes*'s Pentateuch, I beſeech your honours to ſpare us in that; becauſe ſo many as we ſend, ſo many bibles are maimed, and made incomplete, becauſe they want the five books of *Moſes*. We preſent your honours with one book, ſo far as we have gone in the work, and humbly beſeech, that it may be acceptable, until the whole be finiſhed; and then the whole impreſſion (which is two thouſand) is at your honours command. Our ſlow

progreſs

progreſs needeth an apology. We have been much hindered by the ſickneſs this year. Our workmen have been all ſick, and we have but few hands, one Engliſhman, and a boy, and one Indian; and many interruptions and diverſions do befal us; and we could do but little this very hard winter. But I ſhall give your honours no further trouble at this time; only requeſting the continuance of your prayers and protection. So I remain,

Your honours

to ſerve you in our Lord Jeſus,

John Eliot.

POSTSCRIPT.

THE people of *Natik* have procured ſome friend of *Sherborn*, to draw up a letter to me, which I make bold to preſent to your honours view, being here incloſed. If I have been over bold herein, I beſeech your honours to pardon me.

IX.

Roxburg, Auguſt 29, 1686. in the third month of our overthrow.

Right honourable unweariable nurſing father,

I HAVE nothing new to write but lamentations, and I am loth to grieve your loving and noble ſoul.

OUR Indian work yet liveth, praiſed be God; the bible is come forth, many hundreds bound up, and diſperſed to the Indians, whoſe thankfulneſs I intimate and teſtify to your honour. *The Practice of Piety* is alſo finiſhed, and beginneth

wrote by Dr. Lewis Bayly, Biſhop of Bangor.
Newcourt's Repertorium. 1708. Vol. 1. fol. 107. — Note, [illegible]

neth to be bound up. And my humble requeſt to your honour is, that we may again reimpoſe the primer and catechiſm; for though the laſt impreſſion be not quite ſpent, yet quickly they will; and I am old, ready to be gone, and deſire to leave as many books as I can. I know not what to add in this diſtreſſing day of our overthrow; ſo I commit your honour to the Lord, and reſt,

Your honour's
to ſerve you in Jeſus Chriſt,
John Eliot.

X.

Roxburg, July 7, 1688.

Right honourable, deep learned, abundantly charitable, and conſtant nurſing father,

SIR,

I AM drawing home, and am glad of an opportunity to take my leave of your honour with all thankfulneſs. Sir, many years ſince you pleaſed to commit 30*l.* into my hand, upon a deſign for the promoting Chriſt his kingdom among the Indians; which gift of yours I have religiouſly kept, waiting for an opportunity ſo to improve it; but God hath not pleaſed yet to open ſuch a door. I am old, and deſire to finiſh that matter, and take the boldneſs to requeſt your honour, that it may be thus diſpoſed of. It being in the hand of major *Gookins*'s relict widow, and he died poor, though full of good works, and greatly beneficent to the Indians, and bewailed by them to this day; therefore let his widow have 10*l.* his eldeſt ſon, who holds up a lecture among the Indians and Engliſh 10*l.* and the third 10*l.* give it to Mr. *John Cotton*, who helped me much in the ſecond edition

tion of the bible. And alſo I muſt commit to him the care and labour of the reviſal of two other ſmall treatiſes, *viz.* Mr. *Shegheard*'s *Sincere Convert* and *Sound Believer*, which I tranſlated into the Indian language many years ſince; and now I hope, that the honourable corporation will be at the charge to print them, by your honour's favour and countenance. But I cannot commit them to the preſs without a careful reviſal, which none but Mr. *Cotton* is able to help me to perform.

THE work in general ſeemeth to my ſoul to be in and well toward a reviving. Many churches of confeſſors of Chriſt are in motions to gather into church eſtate, who do carefully keep the ſabbath. And out of theſe profeſſors of religion, we do gather up and call in ſuch as are willing to confeſs Jeſus Chriſt, and ſeek ſalvation by him. Touching other matters, what our loſſes and changes be, and how trading, *&c.* are ſpoiled, I am ſilent; but my prayer to God is, *Iſaiah* i. 25, 26. *And I will turn my hand upon thee, and purely purge away thy droſs, and take away all thy tin, and I will reſtore thy judges as at the firſt, and thy counſellors as at the beginning*, &c. So do, O Lord.

SIR, the Lord prolong your days, and fill you with all grace, until you arrive at the fulneſs of glory, where I leave you, and reſt,

Your honour's

to ſerve you in Jeſus Chriſt,

John Eliot.

NUMBER VI.

Letters of thanks from the Governor, &c. of *New England*, to Mr. *Boyle*, for his ſervices to that Colony.

Life, p: 87.

I.

Governor and General Court of New-England *to Mr.* Boyle.

Honourable Sir,

THE occaſion of our giving you this trouble is from the confidence we have of your favour and care of theſe his Majeſty's colonies in *New England*, manifeſted by your continued endeavours, as in promoting that good work of the natives converſion, ſo in taking opportunities for ingratiating us with his Majeſty and the right honourable the Lord Chancellor, as we underſtand by your letter to Mr. *Winthrop*, whereby you have given us that comfortable information of his Majeſty's grace towards us, in expreſſing himſelf in a very favourable manner, and that the Lord Chancellor did aſſure you, (with giving you commiſſion to aſſure our friends in the city) that the King intends not any injury to our charter, or the diſſolution of our civil government, or the infringement of our liberty of conſcience, and that the doing of thoſe things is not the buſineſs of the commiſſioners; the truth whereof we believe (as we ought) having the word of ſo gracious a King. But alas! Sir, the commiſſion impowering

powering thoſe commiſſioners to hear and determine all cauſes, whether military, civil, or criminal, (what they have further by inſtruction at preſent we know not) ſhould this take place, what will become of our civil government, which hath been (under God) the hedge to that liberty for our conſciences, for which the firſt adventurers paſſed through, and bore up againſt all difficulties and diſcouragements, that encountered them, as in the way to, ſo in the continuance in this wilderneſs? Sir, we return unto you our true and hearty thanks for your former favours, and crave the continuance thereof as opportunity ſhall offer, and the great mover of hearts ſhall incline you in appearing our friend ſtill, that, if poſſible, the commiſſion may be recalled; for which end we have made our humble ſupplication to his Majeſty, in whoſe eyes if may we find favour, we and our poſterity ſhall have cauſe to bleſs the Lord. But if the decree be paſt, ſo that it may not be recalled, we ſhall wait the Lord's iſſue with us; and whatever may be the conjectures of any rendering alterations here adviſable, the iſſue will ſpeak them to be the ſubverſion of all that, which makes this place or our abode herein deſirable; or if any of thoſe, that deſire a dominion over us, (not to ſerve his Majeſty's intereſt in advancing plantation work, with the countenance of godlineſs, but to ſerve themſelves by his Majeſty's authority, and our ruin) ſhall prevail, it will to poſterity be rendered a diſſervice to his Majeſty's honour, and ſuch a damage, as the procurers will not be able to repair. We can ſooner leave our place, and all our preſent outward enjoyments, than leave that, which was the firſt ground of our wandring from our native country; nor are we thereby made ſuch ſtrangers thereunto, but we can rather chuſe to

return, and take our lot with our brethren, than abide here under the deprivement of the ends of our travels. Our way is with the Lord. Craving your honour's pardon for this boldneſs, lifting up our beſt deſires to the Lord for you, we remain,

SIR,

Your humble ſervants,

in the name and by order of the General Court, held at *Boſton* in *New-England*, Oct. 19, 1664.

Jo. Endecott, Governor.

II.

Mr. Boyle *to* Henry Aſhurſt, *Eſq*;

SIR,

I HAD ſooner ſent you an account of your letter, but that, although I delivered the petition to my Lord Chancellor, ſoon after I received it, and have waited on his Lordſhip ſeveral times ſince for an anſwer, yet I found him always engaged in buſineſs, either with the King, or Duke, or ſuch great perſons, as made me think it improper to deſire to be admitted. But being there this morning ſomewhat early, ſome of his relations, that ſaw me there, would needs bring me in, before I expected it, though a great perſon intervening obliged us to diſcourſe the moſt part aloud, till the Portugal reſident ſurprizing my Lord Chancellor with a requeſt to have audience, put an untimely end to our conference.

P. S. I FORGOT to tell you, that it is not all the New-Englanders, but only the Maſſachuſets, that have

have diſreſpectfully uſed the commiſſioners, to whom the reſt of the colonies have behaved themſelves otherwiſe. And when I ſpake civilly to my Lord Chancellor of your friend Mr. *Winthrop*, his Lordſhip aſſented to the character I had given him.

III.

Governor and Deputy Governor, &c. of New-England *to Mr.* Boyle.

Honourable Sir,

AS an addition to your former kindneſs, touching the preſent of maſts ſent from this colony to his Majeſty, we are lately informed, that you have been pleaſed to ſpeak on our behalf in the ears of his moſt excellent Majeſty, our gracious Sovereign, when our adverſaries, by their hard ſpeeches and falſe ſuggeſtions, have laboured to alienate his royal heart and affections from us; which favour of your's (to a people, that are ſo great ſtrangers to you, and ſo undeſerving your love) calls for gratitude. And therefore, ſhould we be ſilent in our moſt thankful acknowledgment thereof, firſt unto God, that hath ſo inclined your heart, and nextly, to your ſelf, as an inſtrument (and if we may preſume to ſay) an advocate for this part of God's poor church in the wilderneſs, it would render us moſt unworthy of our profeſſion.

SIR, we need not put you in mind, that the poor church of Chriſt, in all ages, even from righteous *Abel*'s time unto this day, hath not wanted adverſaries: the ancient enmity, which God hath put between the two ſeeds, will never reconcile; that example in *Ezra*'s and *Nehemiah*'s time

time do ſufficiently evince this; for although the people of God then had ample charters from thoſe great princes, *Cyrus* and *Artaxerxes*, yet God was pleaſed, for the trial of his church, and the illuſtration of his own glory (in their ſalvations) to permit a *Sanballat*, a *Tobiah*, and others, falſely to accuſe that people, to thoſe princes, of diſloyalty. Sir, we hear, that our adverſaries there are plotting and deſigning againſt our peace; ſo much the more cauſe have we to lye in the duſt before the Lord, imploring his aſſiſtance and ſalvation, as the matter ſhall require. And alſo it is our duty, not to neglect the uſe of that little means, that is left us, in order to the preſervation of our quietneſs and liberties; among which, this application to yourſelf, and by you to our moſt gracious King (whoſe royal heart the Lord hath graciouſly inclined hitherto to favour our righteous cauſe) is the principal.

Sir, we hear of ſeveral things againſt us, which we do not particularly underſtand; but ſo far as is intimated to us, we will make bold here briefly to mention them, with our anſwers to them.

I. Our loyalty is queſtioned. To this we anſwer (in all humility, not boaſtingly) that the demonſtrations of our loyalty are known to thouſands; particularly, 1. We never proclaimed or acted in the name of the late power in *England* in his Majeſty's abſence, as all other remote colonies did. 2. It is known, that in our public prayers, as well as in private families, we pray for our King. 3. When a ſquadron of his ſhips, under Sir *John Harman*, commander, were in the *Weſt-Indies* ſtreightened for proviſions, we freely and ſeaſonably ſent a ſhip laden with proviſions for their ſupply. 4. In that preſent of a ſhip laden with maſts, ſent for the ſupply of his royal navy.

Thoſe

Thoſe two laſt things coſt this poor colony ſome thouſands of pounds; and we have not heard, that any of his Majeſty's colonies (though far exceeding us in riches) have given higher demonſtrations of their loyalty.

II. WE are ſaid to be factious in the principles of religion. Anſwer. If Mr. *Perkins*, and thoſe good old Puritans, in King *Edward* the VIth and Queen *Elizabeth*'s time, did, in their principles or religion, teach evil doctrine (which we conceive no true Proteſtant will ſay) then may we be rendered ſuch; for our religion and principles are the ſame for ſubſtance with thoſe old Chriſtians and reformers called Puritans.

III. IT is ſaid, we are a divided people. We acknowledge, it is a matter to be greatly bewailed, that the church of God, all the world over (by reaſon of man's weakneſs and infirmity) doth labour under diverſity of perſuaſions and apprehenſions in matters of religion, and conſequently do not live in that bleſſed and ſweet unity, that God requires: but for our parts (ſome petty differences excepted) we bleſs God, we have much peace and tranquillity in church and ſtate.

IV. WE are charged with carrying it diſreſpectfully towards his Majeſty's commiſſioners. To this we ſay, that God and man can witneſs for us, that our treatment of them was with civility, according to our mean conditions. Indeed, as to yielding obedience unto their mandates, which were deſtructive to our royal charter; as that was contrary to his Majeſty's inſtructions and letter ſent to us by them, ſo we had no reaſon to ſubmit to them therein.

V. WE are blamed for a great omiſſion touching baptizing of infants. To this we anſwer, that our principles declared to the world in print, particularly

ticularly that of the laſt ſynod held here, doth ſpeak our judgments to run parallel with other reformed churches, viz. That viſible confederate believers and their ſeed are ſubjects of baptiſm. Indeed in practice there hath been ſome omiſſions thereof, as to the largeſt extent, eſpecially in ſome places; but endeavours are daily uſed to reduce each one to the rule.

VI. We are accuſed of rigidneſs to ſuch as differ from us in matters of religion. To this we ſay, that from the firſt ſettling this plantation, theſe heterodoxes of Familiſm, Anabaptiſm, and of late Quakeriſm, have been looked upon by the godly here, as great errors, and the promoters of them diſturbers of peace and order. Thoſe awful and tremendous motions of that ſort of people in *Germany*, and elſewhere, hath ſufficiently alarmed all pious and prudent men to provide a defenſative againſt them. Hence, from our firſt times, laws have been made to ſecure us from that danger; which have, at ſome times, upon juſt occaſions, been executed upon ſome of that ſort of people, who have exceeded the rules of moderation in matters of practice: but this we may ſay truly, that ſome peaceable Anabaptiſts, and ſome of other ſects, who have deported themſelves quietly, have and do live here, under the protection of this government, undiſturbedly.

Lastly, we are accuſed for graſping after dominions, more than belongs to us, and in particular, for taking in a place, called the Province of *Mayne*, belonging to Mr. *Gorge*. To this we anſwer, that our patent (which is of greater antiquity than his) doth take in that place; and this may be clearly demonſtrated. Again, Mr. *Gorge*'s predeceſſor, finding no profit, deſerted the government thereof, and left the people under ſuch confuſion

fuſion and diſorder, that they were neceſſitated to petition earneſtly unto the Maſſachuſets, to take them under their government; which they did, at their earneſt deſire, to prevent their devouring one another. The truth is, there is no profit or benefit doth accrue to our government by their addition, but cumber and trouble. They are generally a very poor people, and contribute nothing to us, for the ſupport of government in this place. We may truly ſay, our main end in taking them under us hath been a deſire to do them good, outwardly and inwardly; eſpecially to encourage a pious and able miniſter to live among them, and to preach the Goſpel to them, which, through the favour of God, hath been in ſome meaſure attained. Before they came under us, we know not of one preaching and pious miniſter in five or ſix villages there, and ſince (through God's favour) they have been well provided therewith. Godly miniſters indeed were very ſhy to go among them to live, before they were ſettled under this government; and at ſuch time, when the commiſſioners took them off from us, and ſettled ſome juſtices among themſelves, it was but a little while after the commiſſioners were gone, but that people fell into ſuch diviſions and confuſions, that many of their miniſters left them; and the people again earneſtly ſued to us for protection and government, finding no benefit (as they alledged) by ſuch, as the commiſſioners had appointed to rule them. Peradventure Mr. *Gorge* and ſome others may apprehend, they are deprived of honour and profit by us in this matter; but, we believe, as it hath, ſo it will be found, that neither the one nor the other would accrue to them, if they had it under their power, according to their deſire.

THUS, noble Sir, we have made bold to give you an account (as briefly as we could) of what we hear is objected againſt us, and our anſwer; committing all to your goodneſs and wiſdom, to make uſe of as you ſhall ſee occaſion.

So deſiring, in all humility, your pardon for our preſumption, in giving you this trouble, with our cordial prayers unto the God of all mercy and grace, to pour upon your head and heart his richeſt bleſſings; with our moſt humble ſervice and love to you preſented, we take leave, deſiring always to remain,

Your honour's

moſt affectionate friends and ſervants,

John Leverett, Governor.
Samuel Symonds, Deputy Governor.
Daniel Gookins, Aſſiſtant.
Richard Ruſſell.
Thomas Danforth.
John Pynchon.
William Stoughton.
Edward Tyng.

THIS is a duplicate of a letter ſent in December laſt. Dated in *Boſton* in *New-England*, May 10, 1673.

The END.

INDEX.

A.

Acrod, Mr. member of the corporation for propagating the goſpel in New England, p. 322.

Air, new experiments on, 123. continuation of, 202, 253. rarefaction of, 209. hidden qualities of, 216. hiſtory of, 286.

Albemarle, D. of, memb. corporat. propagat. goſpel in New England, 322.

Angleſea, E. of, ditto. ibid.

Antiperiſtaſis, confuted——149.

Antrobus, Will. memb. corporat. propagat. goſpel in N. E. 322.

Apſley, William, &c. 4.

Ariſtotle, his principles loſe credit, 112, 113.

Armagh, A. Bp. of, conſents to publicat. of his myſtery of the incarnation in French, 64.

——— recommends the ſtudy of the ſcriptures in the originals to Mr. Boyle, 97.

Aſhurſt, Sir Henry, treaſurer to corporation for propagating goſpel, &c. 140. Sir H. truſtee for Mr. B.'s lecture, 292, 355. Sir H. and Sir W. legacies to, 356.

B.

Barlow, Dr. Tho. commended, 113. engages to write on liberty of conſcience, 299. his book publiſhed, 300.

Barrimore, Lady informs Mr. B. of a report of his marriage, 290. Earl of, legacy to, 349.

Bateman, Sir William, memb. corporat. propagat. goſpel in N. E. 322.

Bathurſt, Dr. of the philoſophical Society at Oxon, 84. 110

——John memb. corpor. propagat. goſpel in N. E. 322.

Beale, Dr. ſome account of him, 115. —— Commendation of Mr. Boyle, 129, &c.

Bede, of the dialects of the bible in this iſland 407.

Bedel, Bp. procures Iriſh pſalms in metre, 364. is for tranſlat. bible into Iriſh, 384. 386.

Beding field, Col. ſells the eſtate of the corporation for propagating the goſpel in America, 140.
Bell, Mr. memb. corporat. propagat. goſpel in N. E. 322.
Benbowe, Mr. ditto, ibid.
Bentley, Dr. his teſtimony to Mr. Boyle's writings, 307.
Bible Iriſh, debates about tranſlating it, 384. tranſlation of N.T. at expence of Sir Wm. Uſher, 385. diſtributed among highlanders, 396, 400, 425. objections againſt printing it anſwered, 403. ——Indian reprinted, 442.
Biddulph, Sir Theoph. memb. corporat. propag. goſpel in N. E. 322.
Bills, Yonker de, his anatomy, 118.
Bingham, Sir Rd. falſly accuſes Mr. Rd. Boyle, 5.
Blair, Mr. promotes diſtribut. bibles among Highlanders, 425.
Blood, humane, tract on, 257.
Bodies, poroſity of, 257.
Boerhaave, character of Mr. B.'s writings, 306.
Boſcawen, and Hamden, Meſſrs. travel with Mr. Tallents, 70. ——Edward, memb. corpor. propag. goſpel in N. E. 322.
Boyle, original name,—ſeat,—family, &c. 2. Richard 1ſt Earl of Corke his own memoirs, arrives at Dublin,—marriage, &c. 4.——falſely accuſed by Wallop—returns to Middle Temple, 5. recommended to E. Eſſex by Mr. Anthony Bacon,—impriſoned, obtains the Q.'s favour,——clerk of the council, &c.——carries news to the Q. with amazing ſpeed, 7. purchaſes Sir W. Raleigh's lands, 8. marries Mrs. Fenton, 10. knighted, &c. 11. promotions—children, 12. death of his Lady, 15. victory over rebels—loſes one ſon in the engagement, 15, 16. dies at Youghal—character—motto—17. ——John Bp. of Corke dies, 11. ——Michael Bp. of Corke, 134. ——Robert hon. his account of himſelf, 17, 18. judicious reflections on his rank—not tenderly educated, 19. contracts ſtammering, 20. eſcapes drowning, 21. ſtudiouſneſs, 22, 25. hates a lie, 22. goes to Eton Coll. 23.—fond of Q. Curtius, advantage by reading him, 25.——eſcapes ſeveral dangers, 26.——one in taking phyſic, induced to ſtudy it, 27. reads Amadis de Gaul to his hurt—ſtudies Algebra, to fix his mind, 28.——his long ague——of power of imagination, 28, 29. favourite of his father, removed from Eton——committed to Mr. Douch's care, 30.—proficience in Latin, hates profane wit, 31.——committed to Mr. Marcombe's care, 32. prevented going in the Scotch expedition, 33.——ſpends much time alone, 34. goes to France—Paris, Lyons, Geneva, 36 ſtudies, &c. at Geneva, remarks on a book entitled le Monde, 37. his exerciſes—ſkill in French, 38.

38. account of a dreadful ſtorm—effect on him, 39. fine ſaying to looſe young men, 40. religious melancholy, temptations, recovery, 41. reflection on examining truth of religion, 42. goes for Italy—arrives at Venice, &c. 43. at Florence, learns Italian, reads Galileo, 44. has Rabbi's in the houſe with him:—at Carnival and Bordello's unblemiſh'd, abominable vileneſs of Friars, 45.——arrives at Rome, ſees pope Urban, 46. returns— 47. arrives in France — his danger in refuſing to honour the Crucifix at Marſeilles—vigorous application to ſtudies, 48——reads Stoics——his bills of exchange miſcarry, 49——arrives in England——at his ſiſter Ranelagh's, 50. goes to France——returns and reſides at Stalbridge——a pleaſant account of his journey, 51——applies to Nat. Philoſophy and Chemiſtry there——preſages continuance of civil war, 57. account of our affairs to Mr. Marcombe, 58——remarks on the preſbyterian government, 62. forgives Tom. Murray, 65. writes to Mr. Tallents, 66. letters to L. Ranelagh, 70——to Mr. Hartlib about univerſal character, 73. laments diviſions among Chriſtians—remarks on Geneva church government, 77. writes an epiſtle to perſuade to a communication of ſucceſsful receipts in phyſic, 81. has at his lodgings, in Oxon, gentlemen, who afterward formed the R. Society——letters of reproof to a noble Lord 84. goes to Holland, 89. his eſſay on ſcripture, 95. recommends ſtudying oriental languages, 96, 101. learns Heb. of a Jew, 99. his concern about error of his ſteward in grants made, 106——in Ireland, makes anatomical experiments with Dr. Petty——finds ſilver ore there, 108, 109. at Oxford ſome years, acquainted with Dr. Fell——rejects Ariſtotle's explications of phænomena of nature——would not read Des Cartes for many years, 111. purſues the ſtudy of oriental languages——conſults Dr. Barlow on caſes of conſcience, 113, &c. acquainted with Mr. Oldenburg—King's reſpect to him, 121. refuſes to enter into holy orders, 122.—writes to the Bp. of Corke on forfeited impropriations granted in his name, 134—made governor of the corporation for propag. goſpel in N. England, 136, 140——recovers the revenue of the corporation, 141——receives an anonymous letter on his Stile of the ſcriptures, 144. elected into company royal mines, 145——nominated provoſt of Eton coll. 149——writes to Dr. Stubbe, who dedicated the account of Greatrakes's cures to him, 157. attends Dr. Sydenham, viſiting his patients, 180, 181——thanks to him, 185. candor to Stubbe, 188.——writes to Du Moulin about the devil of Maſcon, 202. ſends Grotius on the Chriſtian religion in Arabick, to the Levant, 211. recom-

mends propagat. the goſpel in E. Indies, to R. Thompſon, Eſq; 226. prints goſpel in Malayan tongue, 230, 293. his works printed at Geneva, without his conſent, 232. Mr. Newton's great regard for him, 234. choſe preſident of R. Society, 250. excuſes accepting, 251. contributes to expence of publiſhing hiſtory of reformation, 252. writes to Mr. Eliot of N. England againſt perſecution, 253. loſs of his writings—ill uſed by plagiaries, 264. reſigns his place of governor to the corporation for propagat. goſpel, &c. on account of health, 270. confines receiving viſits to particular days, 273. letter to a friend about chemical proceſſes, 274 —— thought metals tranſmutable into gold——procures repealing the act againſt multiplying gold, &c. 278. ſends to Mr. de la Croſe an experiment of lowering bottles in the ſea, 281. ——proteſtation about his will, 282. complains of his ſight to Dr. Turbeville, 283——death, &c. 285——poſthum. works, 286——character, 288. ſimplicity of diet——ſtammered a little, 289——never intended marriage——letter to lady Barrimore thereon, 290——reverence of the name God, 291. founds a lecture, 292. rewards Dr. Pococke for tranſlating Grotius—293. concern to publiſh a turkiſh Teſtament, &c.——benefactions towards propagating goſpel in America, and kindneſs to N. E. regard for clergy—294—to poor nonconforming miniſt. in Wales——gave a fifth of tithes and impropriations to pious uſes——conſtant to eſtabliſhed church, hears Sir H. Vane preach, 295. thoughts of Chriſtian religion, laments diviſions among Chriſtians, 297. zeal againſt perſecution, moderation towards diſſenters, 298. engages to write on liberty of conſcience, 299. extenſive charity, 300. plain living, 301——candid temper, modeſty, zeal againſt ſlanderers, decently chearful, 302. reſpectful way of ſpeaking of governments though faulty, refuſes peerage, 363. treated with great diſtinction by our princes—reputation abroad, reſort to him, 304. great learning, 305. teſtimonies to his worth, 306——exact in experiments, 314. his will, 335——loſſes, 346——letters about Iriſh bible, 363.

Boyle, Capt. legacy to, 349.

Bramhall, Bp. is not for tranſlating bible into Iriſh, 384.

Brinſley, Law. memb. corporat. propagat. goſpel in N. E. 322.

Broghil, Ld. his bravery, 62.

Bromfield, Sir Lawrence, memb. corporat. propagat. goſpel in N. E. 322.

Burnet, Dr. acknowledges Mr. Boyle's encouragement in writing his Hiſt. Reformation, 252——tranſmits him account of his travels, 262. preaches funeral ſermon for Mr. B. 286. legacy to him, 338.

INDEX.

Buxtorf and Bythner commended, 103.

C.

Campbell, Sir Hugh, tranſlates catechiſm, &c. into Iriſh for Highlanders, 398.
Carew, Sir George, treaſurer in Ireland, 7.
Cartes's philoſophy taught in Holland, 112.
Cauſes final, &c. 262.
Character univerſal, 73.
Charter for propagating goſpel in N. E. 319. Appendix.
Charteris, author of catechiſm for highlanders, &c. 415.
Chemical proceſſes of Mr. B. 274.
Chemiſt, ſceptical, 132.
Civitas Societatis Campanella's, 75.
Clancarty Counteſs of, legacy to, 349.
Clarendon Ld. ſollicits Mr. B. to enter into holy orders, 122.
Clarke Geo. memb. corpor. propag. goſpel in N. E. 322.
Clifford Ld. legacy to, 349.
Clodius Dr. 108.
Codrington Mr. Rob. dedicates to Mr. B. 125.
Cold, tract on, 148.
College, inviſible, 66, 67, 79, 82.
Colours, tract on, 142.
Conſcience, liberty of, agreement to write on, 299.
Corke Bp. of, writes to Mr. B. about impropriations, 138.
Corporation for propagating goſpel, 140. charter, 319. Appendix.
Cotton Mr. John, aſſiſts in edition of Indian Bible, 448.
Country, nat. hiſt. of, tract of, 287.
Courtney Nich. Eſq; legacy to, 356.
Cowley, Mr. commends Mr. B.'s wit, 291.
Cox, Dr. Tho. memb. corp. propag. goſpel in N. E. 322.
Croſe de la, publiſhes Mr. B.'s account of bottles lowered in ſea, 281.
Croſs, Apothecary at Oxon. 110 —— Vicar of Chew defends Ariſtotle, 187.
Cudworth, Dr. teſtimony to Greatrakes, 179. —— perſuades Mr. B. to publiſh his works in Latin, 257.
Cullen, Sir Abr. teſtimony to Greatrakes, 179.

D.

Daniel, A. Bp. care in tranſlating N. T. into Iriſh, 385.
Davenant, Sir Wm. commends Mr. B.'s wit, 291.
Dent, Dr. teſtimony to Mr. B.'s ſentiments of the Ch. England, 298.

Denton, Dr. teſtimonial to Greatrakes, 179.
Dockett, John memb. corpor. propag. goſpel in N. E. 322.
Doe, Sir Charles, teſtimonial to Greatrakes, 179.
Dopping, Bp. letter about Iriſh T. 383.
Douch, Mr. tutor to Mr. B. 30.
Doyley, Charles, memb. corpor. propagat. goſpel in N. E. 322.
Dungarvan, Ld. raiſes a troop for the K. 33.
Dury, J. his tract on logic commended, attempts reconciling Lutherans and Calv. 77—engages to write on liberty of conſcience, 299.

Dr. Jr. Du Moulin. 202. 203.

E.

Effluviums, nature of, 211.
Eliot, Mr. John, letters to Mr. B. about propagat. goſpel in N. E. 430.
England N. governor of, letter of thanks to Mr. B. 450.
———people of, vindicate themſelves againſt a charge of perſecution, 453.
Enquiries philoſophical, uſe to mankind, 111.
Ent, Dr. a member of the inviſible Coll. 83.
Eſſays philological, 125.
Eſſex, E. of, his pompous funeral, 61.
Ethics, Mr. B.'s tract on, 65.
Evelyn's account of Mr. Rd. Boyle's courting Mrs. Fenton, an infant, 10. marg.*——account of him, 115. truſtee for Mr. B.'s lecture, 292, 355.
Experiments medicinal, 287.

F.

Faber, Albert Otto, teſtimony to Greatrakes, 179.
Fabricius, Guido, author of Syriac T. 100.
Fairclough, Dr. teſtimony to Greatrakes, 179.
Fire, flame, tract of, 134, 210.
Firmneſs, hiſtory of, 126.
Fiſh dying ſtrangely, 431.
Fitzgerald, Capt. and Lady Catharine, legacies to, 349.
Florence, city of, deſcribed, 44.
Fluids, of, 226.
Fluidity, hiſt. of, 126.
Foley, Eſq; memb. corpor. propag. goſpel in N. E. 322.
Forms, origin of, 183.
Foſter, profeſſ. Greſham Coll.—of the inviſible Coll. 83.
Foxcroft of Cambridge, teſtimonial to Greatrakes, 155.

G.

Galileo dies, his brave saying to friers, 45.
Gardiner Justice, accuses Mr. Rd. Boyle unjustly, 5.
Gassendus commended, 80.
Gems, origin of, 210.
Gerhard harmonic Synopsis Hebr. &c. commended, 104.
Getseus, Mr. Minr. in Devon. tutor to Greatrakes, 151.
Gillibrand, Mr. Tho. memb. corp. propag. gospel in N. E. 322.
Glanvil, Mr. his plus ultra, 187.——encomium on Mr. B. 188.
Glassius commended, 103.
Glisson, Dr. of the philosophic Society at Oxon, 83.
Goddard, Dr. receives gentlemen at his lodgings, afterward of R. S. 83.——of the philos. Society at Oxford, 110.
Godolphin, Sir John, testimonial to Greatrakes, 179.
Gold, metals transmutable into, 278.——hot with ☿ 279. degradation of, 233.——act against multiplying it repealed, 278.
Gospel, propagation of, charter for, 319. Appendix.
Government, presbyterian, remarks on, 62.
Grand, Antony le, his Hist. naturæ dedicat. to Mr. B. account of him, 213.
Graterix, Mr. ill contrives an air pump, 111.
Greatrak's, Val. account of him, 151.—vindicates himself and dedicates to Mr. B. 178.—testimonial signed by Mr. B. 179.
Gregg, Mr. legacy to, 340.
Gunning, Dr. Peter, permits not the printing verses of Du Moulin, in praise of R. Society, 204.

Greatraks the Stroker. 151.

H.

Haak, Mr. Theod. of the philosophic Society in London, 83.
Hall, Mr. the young wit of Cambridge, commended, 75, 80.
Halley, Dr. his report of Mr. B.'s opinion about transmutation, 79, 278.
Hamden and *Boscawen*, Messrs. travel with Mr. Tallents, 70.
Harrison, Mr. his commendable care of Mr. B. at Eton Coll. 24.
Hartlib, Mr. account of him and family, 71.—his Imago societatis, 74—interests himself much in the invisible College, 79.—commended by Mr. B. as the nurse of it, 92, 93.—brings Mr. B. acquainted with Dr. Petty, 109.
Hastings, Lady Mary, proposed to Mr. B. for a wife, 291.
Hayes, Mr. memb. corpor. propag. gospel in N. E. 322.
Highmore Dr. addresses a book to Mr. B. 93.

Hobart, Sir N. teſtimony to Greatrakes, 179.
Hobbes, Mr. attacks Mr. B. 124.—confuted on cold, 149.
Hooke, Mr. Rob. frames an air pump for Mr. B. 111.—legacy to, 340.
Horneck, Dr. receives contributions for Iriſh Bible, 401.
Hughes, Mr. John, his character of Mr. B. 307.
Hutchinſon, Mr. memb. corporat. propag. goſpel in N. E. 322.
Hyde, Mr. uſed by Mr. B. in ſtudying in orientals, 113.—directs publiſhing goſpels in Malayan language, dedicates to Mr. B. 230.
Hygroſcope, ſtatical, 214.
Hydroſtatics, 182.

I.

Illyricus Flacius, his Clavis Script. commended, 103.
Impropriations forfeited, granted in Mr. B.'s name, 134.
Indians, Chriſtian, their worſhip, 443.
Intellect, man's, high veneration it owes to God, 260.
Johnſon, Wm. legacy to, 356.
Iriſh tongue, preaching in it in the college chapel, 371.
Jurian, Mr. memb. corpor. progagat. goſpel in. N. E. 322.

K.

Killigrew, Mrs. married to Mr. Francis Boyle, 35.
King, Sir Edm. legacy to, 340.
——Mr. aſſiſts in tranſlat. N. T. into Iriſh, 385.
Kirk, Mr. a highland miniſter corrects prayers, &c. in Iriſh tongue, 398, 413, 415.
Kirkwood, Mr. his letter to Mr. B. about Iriſh Bibles for Scotland, 396.——letter to Mr. B. and thanks of Bp. Roſſe and clergy, 407.
Knight, Alderman, teſtimony to Greatrakes, 179.

L.

Linus, Franciſcus, attacks Mr. B. 124.
Liquor, ſelf moving, 259.
Liſcarrol, defeat of rebels there, 16.
Locke, Mr. a witneſs to Dr. Sydenham's practice in ſmall-pox, 185.——commends Mr. B.'s hiſtory of air, 286.
Lloyd, Mr. of Charterhouſe, ſuppoſed to write againſt Greatrakes, 178.
London, inviſible Society there, 83.
Love ſeraphic, treatiſe of, 88, 89, 124.

Love, Alderm. memb. corpor. propag. goſpel, in N. E. 322.
Lower, Dr. about tranſfuſion of blood, 184.

M.

Mallet, John, Eſq; letter to him, 101, 207.——Mr. B. recommends ſtudy of ſcriptures in originals to him, 102.
Manchester, E. of, memb. corporat. propag. goſpel in N. E. 322.
Manwood, Sir Rd. Ld. Chief Baron, Mr. Rd. Boyle clerk to, 4.
Marcombe, Mr. Governor to Mr. B. his character, 32.—ſupplies Mr. B. with money abroad, 49, 50.
Marſhal, Dr. writes a preface to goſpels in Malayan language, 230.
Martyrdom, Theodora, &c. 262.
Maſtic wood, uſe of, in catarrhs, gout, &c. 191.
Meares, Mr. memb. corporat. propat. goſpel in N. E. 322.
Meath, Bp. of, letter about Iriſh Bible, 363.——preface to Iriſh T. 368.—to Dr. Marſh on the ſame, 372.—to Mr. B. 380.
Medicina hydroſtatica, 280.
Medicines, ſpecific, reconcilable to corpuſc. philoſophy, 259.
Meditations, occaſional, treatiſe of, 147.
Melſter, Mrs. legacy to, 349, 356.
Mercury, incaleſcence with gold, 219.
Meredith, Dr. John, provoſt of Eton Coll. dies, Mr. B. nominated ſucceſſor, 149.
Merret, Dr. of the philoſophical Coll. at Oxon. 83.——brings an account of freezing into R. S. 148.
Merſennus commended, 81.
Metals, tranſmutable into gold, 278.
Micklethwait, Dr. memb. corporat. propag. goſpel in N. E. 322.
Milner, Alderm. memb. ditto, ibid.
Modeſty, miſtaken, eſſay on, 89.
Molyneux, Wm. Eſq; opinion of Mr. B.'s hiſtory of air, 286.
Monde le, Mr. B.'s opinion of a tract ſo called, 37.
Morbegno, la Montagna di, account of that very high hill, 43.
Motion, languid, tract on. 258.
Moulin, Dr. his book of the devil of Maſcon, 202.——commends Mr. B. 204.——his verſes in praiſe of R. S. not permitted to be printed, ibid.

N.

Nature, vulgarly received notion of, 261.
Naylors, of Canterbury, Mr. Rd. Boyle's anceſtors on mother's ſide, 2, 3.

Newman, Rd. Eſq; legacy to, 338.
Newton, Mr. Iſaac, his letter to Mr. Oldenburg on the incaleſcence of ☿ &c. 221.——to Mr. B. on the ætherial medium, 234.——to Oldenburg on ditto, 248.
Nichols, Mr. John, legacy to, 338.
Noctiluca, aerial, 250.—icy, 253.
Noel, Mr. Martyn, memb. corporat. propag. goſpel in N. E. 322.

O.

Oldenburg, Henry Eſq; account of him—death, 114.
Ormond, D. of, memb. corporat. propag. goſpel in N. E. 322.
Oughtred's Clavis Mathematica, commended, 81.
Oxford, philoſophic Society removes thither from London, 83.

P.

Palſy, Mr. B.'s regimen for, 207.
Paradoxes, hydroſtatic, 182.
Patrick, Dr. Simon, teſtimony to Greatrakes, 179.
Pattiſhal, Tho. daughter of, married to Mr. Roger Boyle, 2.
Peake, Alderman, memb. corporat. propag. goſpel in N. E. 322.
Pell, Dr. account of him—death, 117, 118.
Perſecution, againſt, 63, 253, 298.
Pett, Sir Peter, Attorney Gen. for Ireland, publiſhes Mr. B.'s book on the ſtile of the Scripture, 143.——obſerves his great veneration of the Deity, 291—teſtimony to his zeal againſt perſecution, agrees with Mr. B. to write on liberty of conſcience—publiſhes on the ſubject, 299.——truſtee in Mr. B.'s will, 350.
Petty, Dr. meets the philoſophical Society at Oxon. 84.——makes anatomic diſſections with Mr. B. in Ireland——dedicates a book to Mr. Hartlib—character, 108.
Philaretus, i. e. R. Boyle, account of his own life, 18, &c.
Philoſophic enquiries, their great uſe, 111.
Philoſophy, natural, theological uſe of, 90.
——experimental, uſefulneſs of, 209.
Phoſphorus, paper about, 288.
Piur, a town buried under ground, 42.
Pococke, Dr. uſed by Mr. B. in ſtudying oriental tongue, 113.—copies of his Grotius ſent into the Levant, 211.—rewarded for his tranſlation, 293.
Poroſity, 257.
Power, Sir Pierce, marries Mr. Roger Boyle's daughter, 2.

Powerſcourt, Lady Viſcounteſs, legacy to, 349.
Proteſtants in Ireland, legacy to, 359.
Pump, air, invented at Oxford, 111.

Q.

Qualities, coſmical, tracts of, 205.
——mechanical, origin of, 223.

R.

Ranelagh, Lady, death and character of, 284.
——E. of, legacy to, 349.
Reaſon and religion, reconcileableneſs of, 218——on things above reaſon, 253.
Redi's character of Mr. B.'s writings, 307.
Refugees, French, legacy to, 356.
Reily, Mr. ſkilled in Iriſh tongue, 384.
Rhine, river, 42.
Rhoſne, river, 36.
Roberts, Ld. memb. corporat. propag. goſpel in N. E. 322.
Rolfe, Mr. memb. ditto, ibid.
Rome, remark on it, 46.
Rotherham, Sir John, truſtee to Mr. B.'s lecture, 292, 355——legacy to, 356.
Rouën's, floating bridge, 36.
Ruſſel, William, Eſq; daughter of, married to Mr. Lodowic Boyle, 2.
Ruſt, Dr. his teſtimony to Greatrakes, 179.

S.

Saliſbury Bp. of, legacy to, 338.
St. Claire, legacy to, 340.
Sanderſon, Dr. writes on conſcience, by encouragement of Mr. B. 121.
Say and Seale Ld. Viſcount, memb. corpor. propag. goſpel in N. E. 322.
Scripture, eſſay on, 95. thoughts on tranſlation, 96. ſtile of, 143.
Sea, flux and reflux of, Dr. Wallis on, 179. ſaltneſs of it, 214. made freſh, 256. bottles lowered in, 281.
Septuagint, A. Bp. Uſher's ſaying of it, 97.
Shaen, Lady Frances, legacy to, 349.
Shaw, Dr. Peter, his complete character of Mr. B.'s writings, 307.

INDEX.

Sheafe, Mr. Herman, memb. corpor. propag. goſpel in N. England, 322.
Shepherd, Mr. his ſincere convert, tranſlated into Indian language, 449.
Sheridan, Mr. aſſiſts in tranſlating N. T. into Iriſh, 385.
Slare, Dr. a legacy to, 340.
Smith, Sir William, teſtimony to Greatrakes, 179.
——Eraſmus, memb. corporat. propag. goſpel in N. E. 322.
——Thomas, a legacy to, 338.
Society, royal, riſe of, 82. occaſion of Sprat's hiſtory of, 187. attacked by Stubbe of Warwick, 188. Mr. B. choſe preſident of, 250. wiſh for them, 292. legacy to them, 356.
Southampton, E. of, memb. corpor. propag. goſpel in N. E. 322.
Southwell, Sir Robert, writes to Mr. B. from Tuſcany, 125.—about his charity to miniſters, ſerving cures on impropriated eſtates of his, 295. legacy to, 356.
Spalding, Mr. his letter to Mr. B. about Iriſh bible, 422.
Speed, Tho. memb. corpor. propag. goſpel in N. E. 322.
Spiritedneſs, publick, eſſay on, 90.
Sprat, charged with high treaſon, in his hiſtory of R. S. by Stubbe, 192.
Staynes, Tho. memb. corporat. propag. goſpel in N. E. 322.
Stillingfleet, Dr. Mr. B.'s regard for, 298.
Stone, cauſe of that diſeaſe, 432.
Stubbe, writes of Greatrakes to Mr. B. 151. publiſhes an account of his cures, dedicates to Mr. B. 155.——offends him, 156. attacks R. S. 188. charges Sprat with high treaſon, 192. writings——death, 201, 202.
Subſtance, ſhining, 233.
Swearing, diſcourſe againſt, by Mr. B. 88, 288.
Swift, Dr. ridicules Mr. B.'s book on occaſional meditations, 147.
Sydenham, his methodus curandi febres, dedicated to Mr. B. 180.——repents not of any thing ſaid in his tract de Variolis, 185.——deſign of ſpecifics, 187.

T.

Talbot, Sir Gilbert, his powder, 94.
Tallents, Mr. Francis, letter to him from Mr. Boyle, ſome account of him, 66.
Teniſon, Dr. converſed with Mr. B. on perſecution, 298. truſtee for Mr. B.'s lecture, 292, 355.
Teſtament, Iriſh, preface to it, 387. how received in the highlands, 400, 401.
——Turkiſh, 293.

Thamet,

Thanet, Counteſs dowager, legacy to, 349.
Theodora, &c. martyrdom, 262.
Theology, excellency of, 216.
Things natural, final cauſes of, 262.
Thompſon, Sir William, memb. corpor. propag. goſpel in N. England, 322.
Toleration, Mr. B. writes on, 89.
Torricellian experiment, 112.
Tranſmutation of metals poſſible, 278.
Trench, Edm. memb. corpor. propag. goſpel in N. E. 322.
Tuſcany, grand D. of, deſires Mr. B.'s correſpondence, 125.

V.

Valtollina, fine valley of, 42.
Vane, Sir H. abuſes ſcripture, 295.
Venice, deſcribed, 43.
Virtuoſo, chriſtian, tract, 280.
Uſher, A. Bp. allows publiſhing his myſtery of incarnation in French, 64. recommends ſtudying original tongues of ſcripture to Mr. B. 97.
——Sir William, at the expence of an Iriſh N. T. 385.

W.

Walker, Dr. his account of Mr. Richard Boyle's marriage with Sir Geoff. Fenton's daughter, 9. marg. *
Wallis, Dr. ſome account of him, 119. death, 120. dedicates to Mr. B. 179. propoſes marriage to him, 291.
Wallop, Sir H. accuſes Mr. Richard Boyle falſely, 5. removed from being treaſurer, 7.
Ward, Dr. *Seth*, of philoſophical ſociety, 83, 110.
Warner, Alderman, memb. corporat. propagat. goſpel in N. England, 322.
Warr, John, legacy to, 338, 340.
Water of the ſea, made freſh, 256.
Waters, mineral, tract of, 257——freſhneſs of, examined, 288.
Watertown, fiſh there dying in an uncommon way, 431.
Watts, Nicholas, legacy to, 340.
Weldon, Col. his teſtimony to Greatrakes, 179.
Whichcote, Dr. his teſtimony to ditto, ibid.
White, Mr. legacy to, 340.
Whittane, Mr. legacy to, ibid.
Wilkins, Dr. 73, 83, 84. 105. teſtimonial to Greatrakes, 179.
Williams, Dr. publiſhes Mr. B.'s diſcourſe againſt ſwearing, 88.
Willis, Dr. Tho. 84, 110.
Winthrop,——

INDEX.

Winthrop, Mr. letter to Mr. B. 145. thought well of by Lord Clarendon, 453.
Woolnough, Joſhua, Mr. memb. corpor. propag. goſpel in N. England, 322.
Works, poſthumous, of Mr. B. 286.
Worthington, Dr. letters to Mr. Hartlib. 72.
Wotton, Sir H. Mr. B. ſent to him, to Eton, 23.
Wren, Mr. Chriſtopher, 110.

FINIS.

BRITISH MUSEUM

ERRATA.

Page 23. l. 6. for, *that great mens children breeding up at home tempts &c.* r. *that breeding up great mens children at home tempts &c.*
Page 41. l. 10. dele *tedious*, l. 23. after *together*, add *for good.*
Page 67. l. 23. for *to*, r. *by.*
Page 96. l. 26. for נמלאות *niphlaſt*, r. נפלאות *niphlaoth.*
Page 131. l. 22. for *philoſophical*, r. *phyſiological.*
Page 169. l. 26. for μεταμείβειν r. μεταμείβειν.
Page 319. l. 9. for *p.* 42. r. *p.* 140.
Page 335. l. 24. for *p.* 84. r. *p.* 282.
Page 363. l. 19. for *p.* 87. r. *p.* 294.
Page 396. l. 24. for *p.* 87. r. *p.* 294.

Intitled 1: June: 7: 1773 1: Vol: 8vo: & bound

The Scripture Theory of the Earth, throughout all its Revolutions, & all the Periods of its Existence, from the Creation to the final Renovation of all things.

By the Author of An Essay on Redemption.

J: F: Rivington

BRITISH MUSEUM

Where may be had of the same Author

The Evidence of Christianity deduced from Fact, & the Testimony of sense, throughout all Ages of the Church, to the Present time: in A Series of Discourses Preached for the Lecture Founded by the Honourable Robert Boyle, Esq: in the Parish Church of St: James Westminster in the Years 1766. 1767. 1768: Wherein this is shewn a Decaying but a Growing Evidence 2 vols 8vo: Price 12.

67

The Christian Virtuoso by the Honourable
Robert Boyle, Qu. 1690 I inmagine to
the Initial are HRB. F.R.S.

BRITISH MUSEUM

The Rd: Wm: Asher D.D in his Epistle Dedicatory of his
Funeral Sermon for Mr: Richard Baxter pa: 3. 4
" Says I cannot omit the mentioning, that Mr: Boyle
" & Mr: Baxter, these Incomparable Persons & their Loved
a Friendship, & Dear Friendship Died little a Head Space
" of one another. Mr: Boyle Died 30 Dec: A. 1691.
" & Mr: Baxter 31 Dec: A. 1691.
" of the Design & Architecture of the Visible World
" & made new Discoveries in the System of Nature: not
" for Curiosity & Barren Speculation, but to admire & adore
" the Perfections of the Deity in the Works, Order, Beauty &
" Marvellous Artifice of the Creatures that compose this
Great Universe!"

I am not a Little surpriz'd that the Ingenious Compiler & Celebrated Biographer Dr: Birch Does not take Notice of the Spectator Character of the Hon: Robert Boyle Esq; Friday

Spectator. December. 5. 1712. No: 554.

"The Excellent Mr: Boyle was the Person, who first "gave Great Designs & Notions to Succeed & the Labours "& Enquiries of the Extraordinary Genius Sir Isaac Newton "and Mr Locke — By Innumerable Experiments he, in a "Great Measure, filled up those Noble Outlines "of Science, which the Predecessor had sketch'd out. "His Life was Spent in the Pursuit of Nature, through "a Great Variety of Forms & Operations, & in the most "Retired, as well as Busie Parts of it

Divine Author"

69

Dr Isaac Watts's Death & Hearse: 1724 pa: 105

Nn 12

Is Here & a Boyle & a Ray in Heav'n?

BRITISH MUSEUM

pa: 10.

Dr: Wm: Wotton

See Dr: Burch's Life
of Abp: Tillotson: 1752
page: 332. 333

Died & Buried in Sussex.
13: Feb: 1726

BRITISH MUSEUM